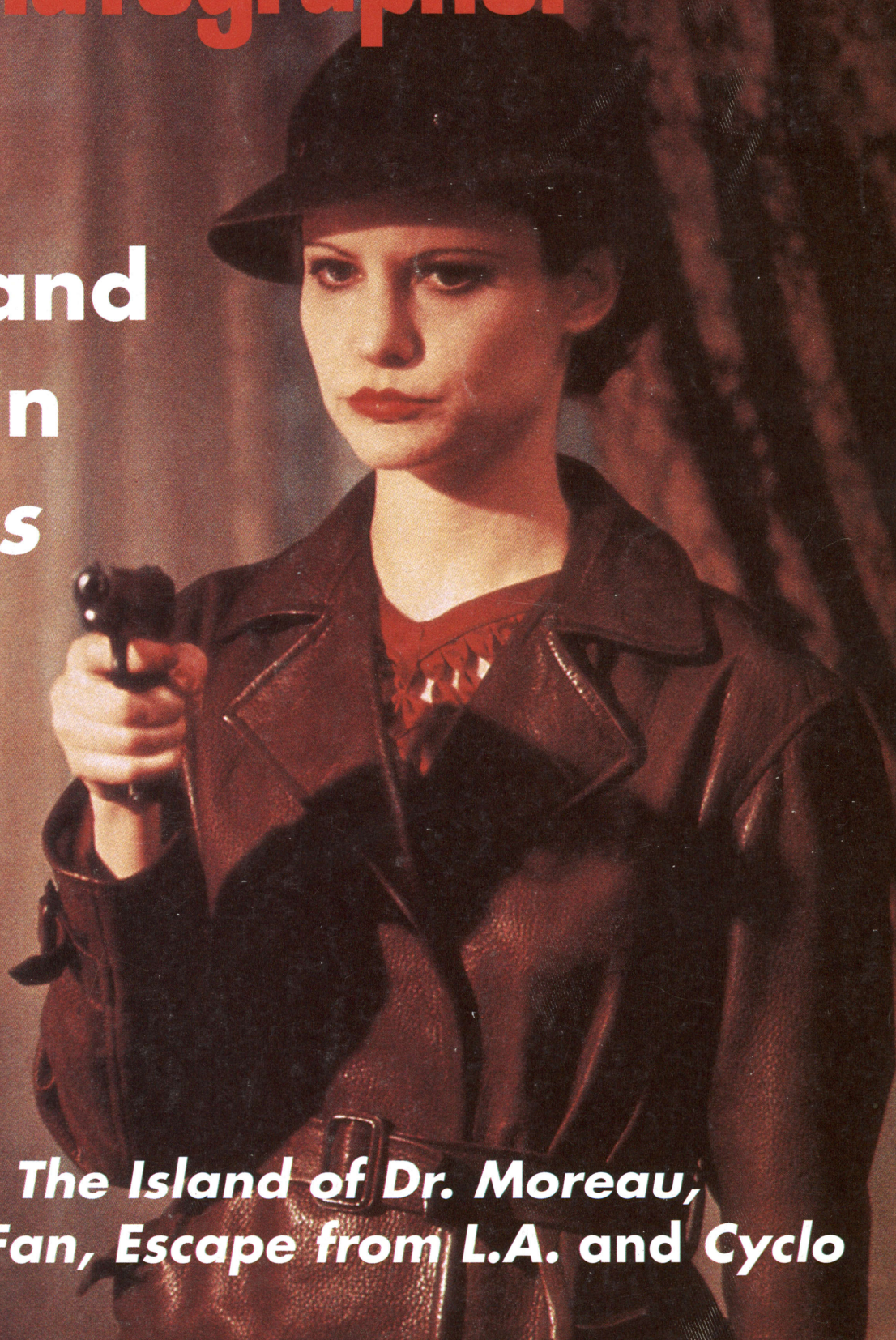


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**On Our Cover:** In an attempt to save her husband from gangsters, Blondie O'Hara (Jennifer Jason Leigh) hatches a kidnapping plot in *Kansas City*, directed by Robert Altman and photographed by Oliver Stapleton (photo by Eli Reed).

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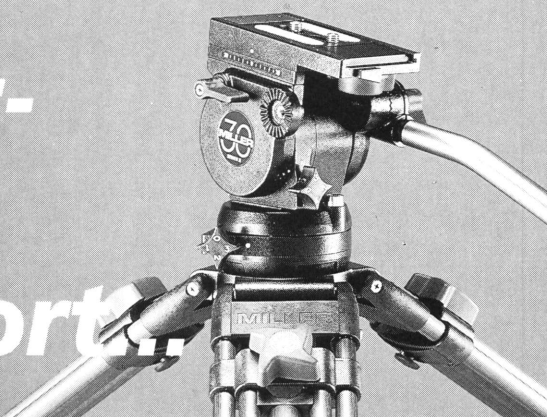


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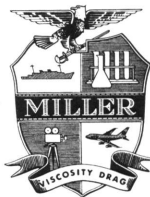
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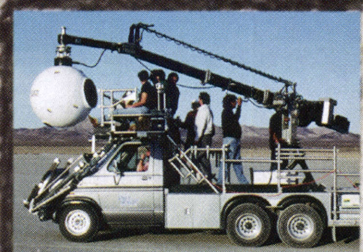
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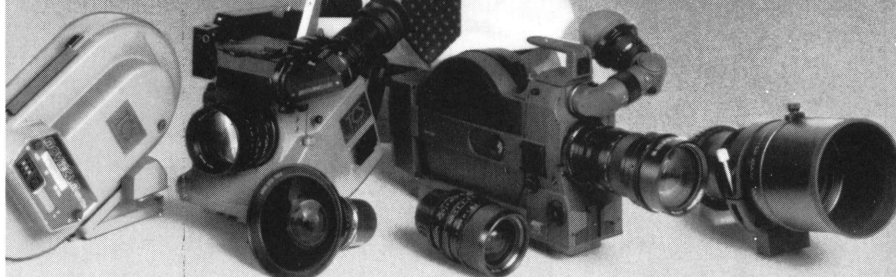
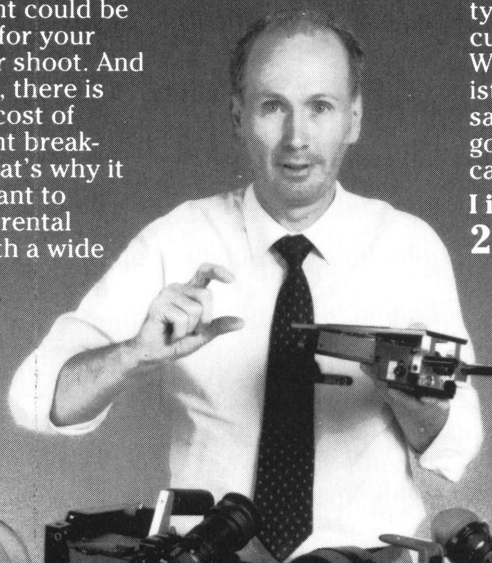
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ANGENIEUX ZOOMS IN

# John Le Blanc on his favorite prime: the Angenieux 17-102.

Director/cameraman John Le Blanc is shooting a Mazda spot on a set in Chicago. On the front of the 535 is the zoom Le Blanc likes to call his "case of primes"—the Angenieux 17-102 T2.9.

Le Blanc and crew have been meticulously lighting and framing a shot that places Chicago Bull Scottie Pippen in the foreground with the car behind him. He arrives to take the place of his stand-in and—yikes—Pippen is at least 4" taller! With the 17-102 in place, though, there's no need to move the camera to reframe the shot. Le Blanc simply zooms to the exact focal length he needs.

## ***Allows More Time to Light.***

"I learned how to light from the Europeans—Vilmos and Laszlo," Le Blanc explains. "And that approach takes a little longer. The 17-102 buys me extra time to light, because I'm not moving the camera or changing primes repeatedly. For the Mazda shoot we had Scottie Pippen for only twelve hours and had three spots to do. The 6X17 helped me get the job done."

## ***Maximum Flexibility.***

"The Angenieux 17-102 replaces a case of primes as my primary optical tool. I save time by dialing in the focal length I want instead of waiting while it's found in a box, uncapped and mounted. And I don't have to choose between an 18 and a 24. I also have the 19, the 23 and everything in between."

## ***Tracks Beautifully.***

"Of course, I utilize the 6X17 as a zoom, as well. For the Mazda spot, we did a reveal from 35 to 17mm—inside the car. The extra wide end of the lens was crucial to the shot and even at 17mm the distortion was minimal."

## ***My Prime Lens.***

"Sure, I still rent primes occasionally—when the producer insists that I won't be able to shoot everything with the zoom. But the primes stay in the box, while the 17-102 stays on the camera."

*November Films Director/Cameraman John Le Blanc has recently worked on spots for Mercedes, BMW, Snuggles and Ford. He won a Golden Lion at Cannes for his international AT&T campaign and has also garnered four Omni Awards.*



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# “An old-fashioned, low-impact, in-camera effect can be more fun and cost less,” says DP Tom Burstyn CSC, “And its look is shaped by me, not by an electronic post shop.”

Shooting a day-for-night dream sequence using a partial-mirror rig and two aligned cameras – one with color, one with infra-red black-and-white:

“**W**orking on night-for-night scenes that were a pain to light well, I have sometimes thought: If this were in black-and-white, it could easily be shot day-for-night.”

## Unreal color

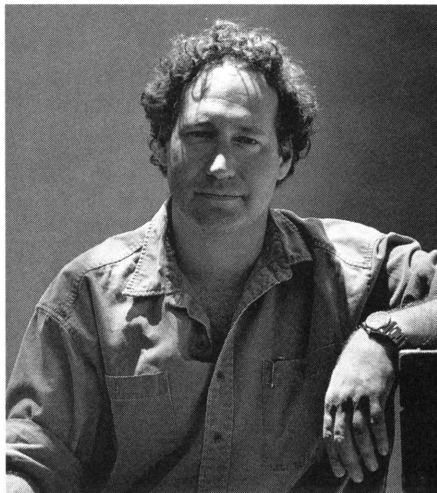
“It’s the color that makes day-for-night look unreal, of course,” says Tom Burstyn, “But you need *some* color in a night scene – even though people see less and less color the darker it gets.”

## Try it out?

“The night exterior dream sequence in *Crazy Horse* gave me the chance to try out one of my low-impact effects. How about shooting it in both color and infra-red with two lined-up cameras and marrying the footage on an optical printer? John Irvin (the Director) agreed to try it.”

## Photography

“With filtered infra-red, the daytime sky would be almost black and skin would glow without a diffusion filter. It would be a *photographic* effect, on film – one



Tom Burstyn: Money replacing imagination?

that you couldn’t get in electronic post. Or, if you *could* get it, the cost would be stupendous.”

## Just shoot it day-for-night and leave the rest to us

“And it’s not just the cost. On a previous job, I remember an electronic post guy telling me (in a dismissive tone): *Just shoot it day-for-night and leave the rest to us*. That bothered me. I like to have some control over the images on the screen.”

## Imagination vs. Cost

“An electronic post effect can be spectacular, but doing it in the camera makes it look part of the photographed story. The excellent New Zealand film *Heavenly Creatures* had some outlandish in-camera special effects. Some were almost clumsy, but they all worked perfectly *because they were imaginative*. You were meant to be aware of them; and the audience happily accepted them as part of the movie.”

## Interested

“When I took the two-camera idea to Clairmont, Denny and the others just jumped on board! They were immediately interested in something new and untried, and how to make it work. By the time the *Crazy Horse* producers had agreed to the infra-red idea, there was less than a month to go, so the prototype rig had to work right first time.”

## 150 foot rolls

“Luckily, it did, so we quickly shot some tests. The infra-red came in 150 foot rolls! We had



### Another way to use it:

"Another thing I'd like to try with this rig," says Tom Burstyn, "Is load the two cameras with identical film stocks and put an ND filter on the lens of one camera only. Shoot with one lens wide open and the other stopped down – and dissolve between the two."

gone looking for a lab still set up to develop black-and-white (to various gammas) and interested in messing with those short lengths. Luckily, we had found one: Foto-Kem."

### 20 minute setup

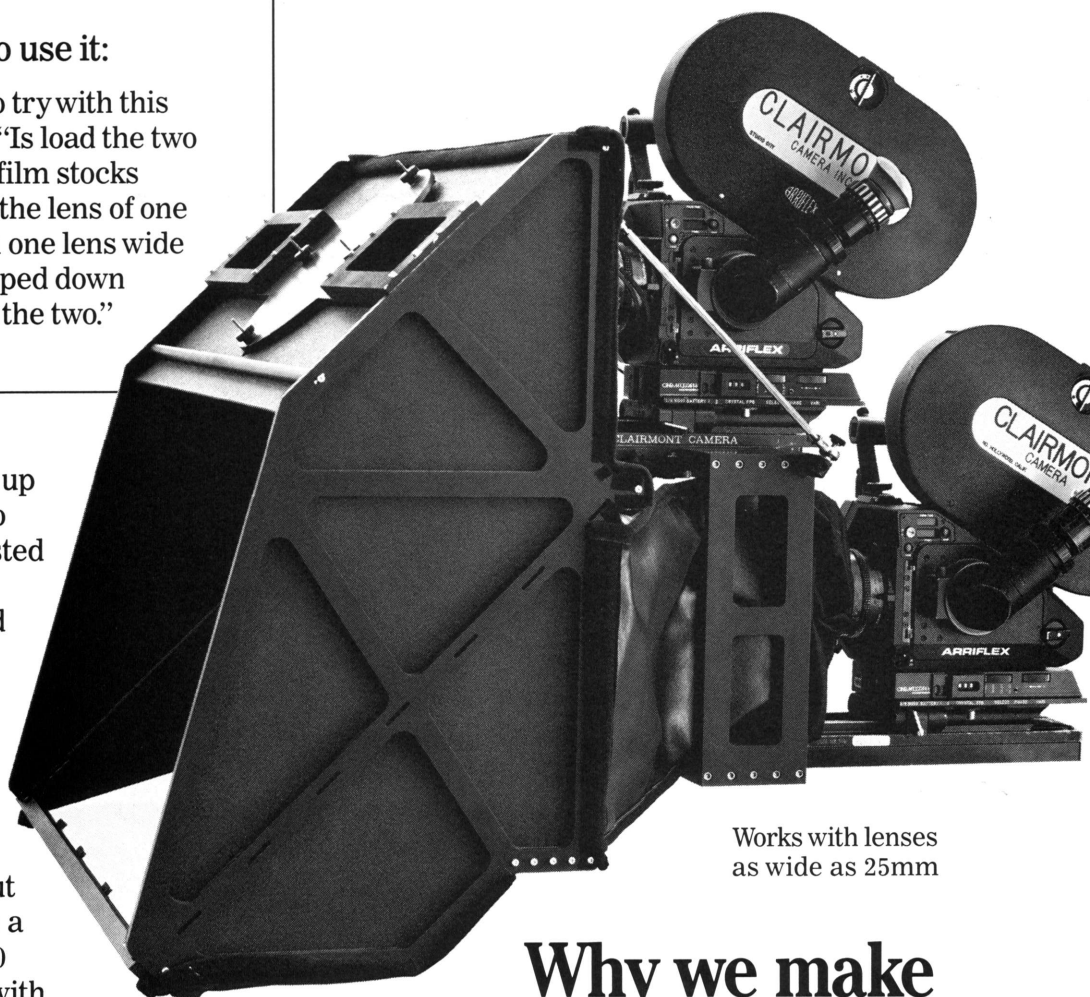
"With its 20x30 inch partial mirror, the Over/Under rig weighed about 45 lbs (without cameras), so it was fairly easy to put on a gearhead. But aligning the two images with a crosshair target took about 20 minutes for each setup. And with the 150 foot lengths, almost every other take was a reload."

### Heat sensitive

"First AC Jeff Clark had his hands full. We were on location in Hot Springs, N. Dakota, with temps sometimes over 100 degrees. Infra-red is very heat-sensitive – we got exposure stripes at the head end where the film had been resting on rollers inside the magazine. Jeff had ice coolers full of magazines with 150 foot loads in them!"

### Taking a chance

"In the end, though, the rig worked out really well," says Mr. Burstyn. "The footage had an antique look, which was appropriate – *Crazy Horse* was a period piece. You're taking a chance when you try things like this. It's great to have the Clairmonts take a chance with you."



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### Tom Burstyn

His recent Feature Film DP credits include *City Of Industry*, *Lotus Eaters*, *Andre* and *Magic In The Water*. His TV Movie/ Series DP credits include *Crazy Horse*, *Foxfire* and *The Hitchhiker*. Among his awards are a CSC Cinematography Award and the 1996 Genie Award for Best Cinematography.

Tom Burstyn came to us with the Over/Under idea and we designed and built it free of charge. We then rented it to him and added it to our rental inventory.

We have dozens of custom tools made this way. The more of them we have, the more useful we are to innovative film makers (which most of our clients are)—so we get more rental jobs from them. We also have fun making things and seeing the results on screen.

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## *Letters*

### **"Restoration" Fallacy**

We've always looked upon your publication with the greatest respect. However, with your June 1996 issue, it seems to have fallen prey to publicists who would have us believe that video transfers have anything to do with film restoration.

In Production Slate ("Restoring *The King and I*"), your writers have not only been led down the garden path, but through a maze and into the forest.

Let me state something clearly for the record.

There is no such thing as "video restoration," only the illusion that something has been restored or saved.

So let's dispense with the thought that *The Alamo*, *It's a Mad, Mad, Mad, Mad World*, *South Pacific*, *Okla-homa!*, *Chitty Chitty Bang Bang* (CCBB), or *The Sound of Music* have been restored.

We are often in awe of the work of the directors of photography who created the large-format images that have survived through the years on the early, unstable Eastmancolor negative stock.

Although there were only a handful of 65mm films produced between the 1950s and the early 1970s, most of them are still in dire need of proper preservation in 65mm on new Estar separation or interpositive stock. Some need restoration before that occurs. Many, now 40 years old, have either begun to fade or are unprintable.

The original negative of *Lawrence of Arabia* had been run over 220 times, *My Fair Lady* closer to 250 times. Both were falling apart, at the very end of their lives. The more popular the film, the worse the condition of the original negative.

The fact that anyone would allow an original negative, especially one of any real age, to be handled by people who would put it in a telecine should be a message to upper management that a rethinking of their asset protection plan is in order.

Is no one thinking ahead? Let's toss aside the notion that anyone might

actually want to see these films on the huge screen again. Let's think merely of video.

Where is the high-definition transfer of *The King and I* going to come from in the year 2020, when the negative is gone?

A word about Eastmancolor. Even with the knowledge that the early forms of the process faded in different ways from emulsion to emulsion, it should be noted that the stock itself has held up remarkably well after hundreds of runs through optical printers. One grim note is that the stock has now been found to do some strange things once unrolled, cleaned and oxidized after so many years. It fades more rapidly.

The problems, however, are not as immense as they seem. This handful of large-format films can be saved through either simple preservation work or, if necessary, full restoration. While they wait their turn, they should be vaulted in a facility like Pro-Tek, at very low temperatures with controlled humidity. This will give them a bit more time.

Once new large-format interpositives (hopefully created after surviving cinematographers or operators have been consulted to approve the timing) have been created, any number of elements can then comfortably and safely be released for telecine, including a 65mm or VVLA IP. But to do it without creating new protection elements is not only foolhardy, but downright stupid.

65mm negatives are extremely delicate. Because of their size, they have a tendency to cup, which causes the center of the splices to open, which leads to tearing. Most negatives of any age have scratches and wear that are most effectively eradicated through the use of wet gate printing to another film element. CCBB was formatted basically the same way as *My Fair Lady*.

This is most fortuitous for restoration. *My Fair Lady*'s splices were opening, but the ability to re-cut the entire film (removing the first and last frame of every shot) while at the same time interrelating all of the new restora-



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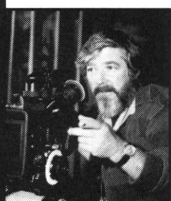
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tion material in A and B rolls for printer functions and with all new splices, gave us a negative that was supremely stronger than it had been. Why can't the same process be used on *CCBB*?

If Crest had to go to the trouble of insert editing 3,500 cuts in *CCBB*, doesn't that tell us something? The message that the film's owners are sending is that the film isn't worth saving as film. It's just more video fodder. Would not the dollars spent insert editing 3,500 shots have been better spent creating a like video transfer from a new 65mm interpositive with all of its printer functions intact, while affording the film some degree of protection?

*The King and I* hasn't been seen in a decent print in recent memory. It would not have been a major problem to reduction-print the original anamorphic 55mm negative to 5-perf 65mm. Or if one really wanted to do it right, why not go from 55mm original to 65mm in full height on a 1:1 basis?

55mm sprockets exist. 55mm projectors exist. How many would Fox like? I'll have them delivered. Any competent optical house could tool up and do a 55 to 65mm setup. Isn't the long-term survival of the film worth it? As for a 55mm rewind, I must admit that I've never seen one. Possibly one used for 35 or 70mm could be modified.

The meaning of the term "film preservation" seems to differ wildly on a studio-by-studio basis. It seems to be that the owners of the greatest number of large-format films have the lowest opinion of their worth.

The work of those who created these films is too important to simply allow it to go unpreserved and tossed aside by executives who can only think in terms of numbers of tapes sold. Is there anyone at these studios (whose job title includes the words "asset protection") who's in it for more than a paycheck, major medical and retirement benefits?

We're at an extremely important point in film history. Eastmancolor negatives are fading rapidly. It's 1996 and we're at a fork in the road. One path leads to proper preservation of film assets (much less expensive than restoration). Some of the studios are already on this road and have been for years. But some seem to be taking the other route, and when a VP of video in 15 years requests an IP on a certain pic-

ture, they'll blame their predecessor when they find that the negative is faded and the separations are defective or don't fit together — or were never made.

— Robert A. Harris  
The Film Preserve, Ltd.  
Bedford Hills, NY

James C. Katz  
The Film Preserve West  
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### Errata

A portion of the subhead for Rudy Behlmer's article on *The Sea Hawk* (Part 1, *AC* July '96) reads "... the definitive 1940 version of Rafael Sabatini's swashbuckling novel." However, as Mr. Behlmer pointed out quite clearly in his text, the 1940 *Sea Hawk* used only the title and nothing else from Sabatini's book. *AC*'s usually reliable headline writers will be forced to take up the oars for their mistake. In Part 2 (*AC* August '96), the caption for the photo on page 110 of Stage 21 should have noted that the picture being filmed was *This is the Army* (1943). The shot itself was courtesy of Bison Archives.

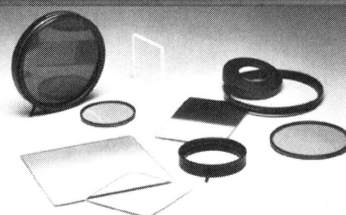
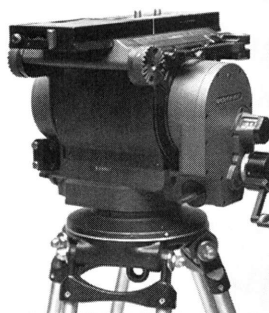
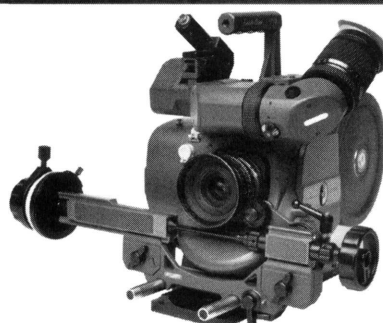
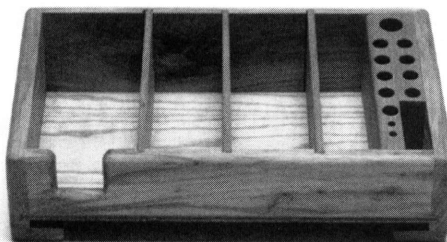
In the *Independence Day* article "The End of the World As We Know It" (*AC* July '96, page 45), an atmospheric anomalie created by alien spacecraft was mistakenly captioned as being of CGI origin. Mark Hartman's *ID4* Cloud Tank department created the ominous achievement by injecting opaque fluid into a large volume of water, backlighting with oscillating sources, and filming it at high speed. As Hartman points out, the cloud effects in the film were "stretched or superimposed by computer, but they were not, nor could they be, created in CGI." Perhaps *AC*'s editorial staff should have contacted more advanced beings for this photo's caption information.

### Special Thanks

The staff of *American Cinematographer* would like to extend a special thank-you to Adele Bass for her assistance in art-directing this issue of the magazine while Martha Winterhalter was away on vacation. Adele's exceptional work kept things running smoothly during Martha's absence, and allowed Ms. Winterhalter a worry-free frolic in the scenic city of Paris. ♦



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## The Post Process

### A New Telecine Debuts from Philips

by Debra Kaufman

At NAB '96, Philips Broadcast Television Systems unveiled its long-awaited new telecine, the Spirit DataCine high-resolution film scanner, which a company spokesperson characterizes as "a wholly new technological approach to transferring film images."

"This product represents a giant leap forward in imaging technology," explains Steve Russell, marketing manager of Film Imaging Products. "Philips and Eastman Kodak have been co-developing this product for the past seven years. We now have a machine which can deliver outstanding images in today's TV markets of 525 and 625 [lines of resolution], and we're ready for HDTV and ATV. We can also offer a 2K data output for download into workstations at a blistering speed."

The Spirit can transfer these high-resolution digital files in real-time and deliver 2K x 2K images (2,000 pixels by 2,000 pixels per frame) via a computer interface in DPX or TIFF file formats, universal computer graphic standards suitable for direct use on high-end computer workstations, and is easily integrated into any form of standard digital storage. The Spirit DataCine's real-time transfer capability (24 frames per second) is limited by current industry interfaces to 6 to 10 frames per second, a rate which still compares quite favorably with the speed of other film scanners in the marketplace.

The resolution-independent output of the Spirit DataCine is a key feature. The resolution-independent images, achieved in real time, suggest a progression towards a digital master which can be "archived" online and endlessly reused for whatever format, standard or resolution is needed.

Much of the technology behind the Spirit DataCine is different than the current breed of telecines, though it looks like a traditional film scanner. It utilizes proprietary CCDs produced by

Eastman Kodak, which include a four-element detail sensor and tri-linear array for color sensing. According to Russell, the performance of this detail/color arrangement exceeds any conventional telecine using RGB beam splitting.

The Spirit also uses a white light beam splitter and dichroic filters over each color sensor, providing far more light to the sensors and reducing optical loss. To achieve the same results with a conventional beam splitter would require a light source eight times as bright, which could cause injury to the film stock being transferred.

A blue-rich 300W Xenon arc lamp provides the correct light output to match the DataCine's sensors; it also offers optical stability during transfers. Since Xenon lamps have no spectral color shift during their lifetime, new transfers of the same material done months after the original session will maintain the same picture values and require only minimal color correction. The diffused-illumination system also optically masks film base scratches.

The Spirit DataCine film scanner also offers all the image manipulation capabilities of a high-end flying spot telecine. The SPOT (Spatially Processed Optical Transformations) spatial interpolator is capable of processing over seven gigabytes of digital information per second in real time, and produces moves including X-pan, Y-pan, zoom, X-size, Y-size and 360-degree image rotation. All image manipulations take place at full 2K resolution.

According to Russell, the Spirit DataCine's advanced scanning technology, combined with the all-digital signal process, "has resulted in a machine which is free from any electronic noise. In fact, the noise is way below the film grain so it cannot be resolved," he says. "This means it is now possible to push the machine across its full dynamic range without the fear of the image appearing





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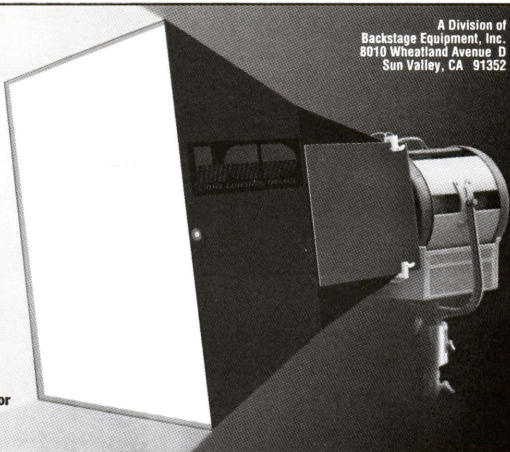
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excessively noisy."

Russell also points out that aliasing is a problem in film transfers today, because "there is just not enough over-sampling on CRT-based scanners to overcome this artifact." But as the Spirit always scans film at full 2K resolutions, no electronic or optical aliasing is visible on the output; this results in a more filmic look at standard television resolutions.

The Spirit DataCine offers a range of other features, including optical matching provided for print, negative, and intermediate film stocks; real-time 2K by 2K data reformatter and TV store for 4:4:4:4 or 4:2:2:4 or 8:4:4 10-bit digital and analog outputs at 525/59.94Hz or 625/50Hz in 4:3, 16:9, and 2:1 fixed aspect ratios (including a video contour corrector); Super 35mm, Academy 35mm, Super 16mm lens gate assemblies including test films; and HDTV outputs for 1125/59.94Hz and 1250/50Hz analog and digital outputs.

Despite all the new technology, Russell insists that a visit to a Spirit DataCine transfer session won't require a learning curve. "The user interface and feature sets make it identical to using any other kind of telecine on the market today," he stresses. "All popular color correctors and edit controllers fully interface to the Spirit. The only difference you'll notice is the improved image quality and wider dynamic range."

Philips Broadcast Television Systems have already confirmed orders for over 12 systems in North America and Europe. In North America, The Tape House in New York, Command Post & Transfer in Toronto, and Crawford Communications in Atlanta have all bought the Spirit DataCine.

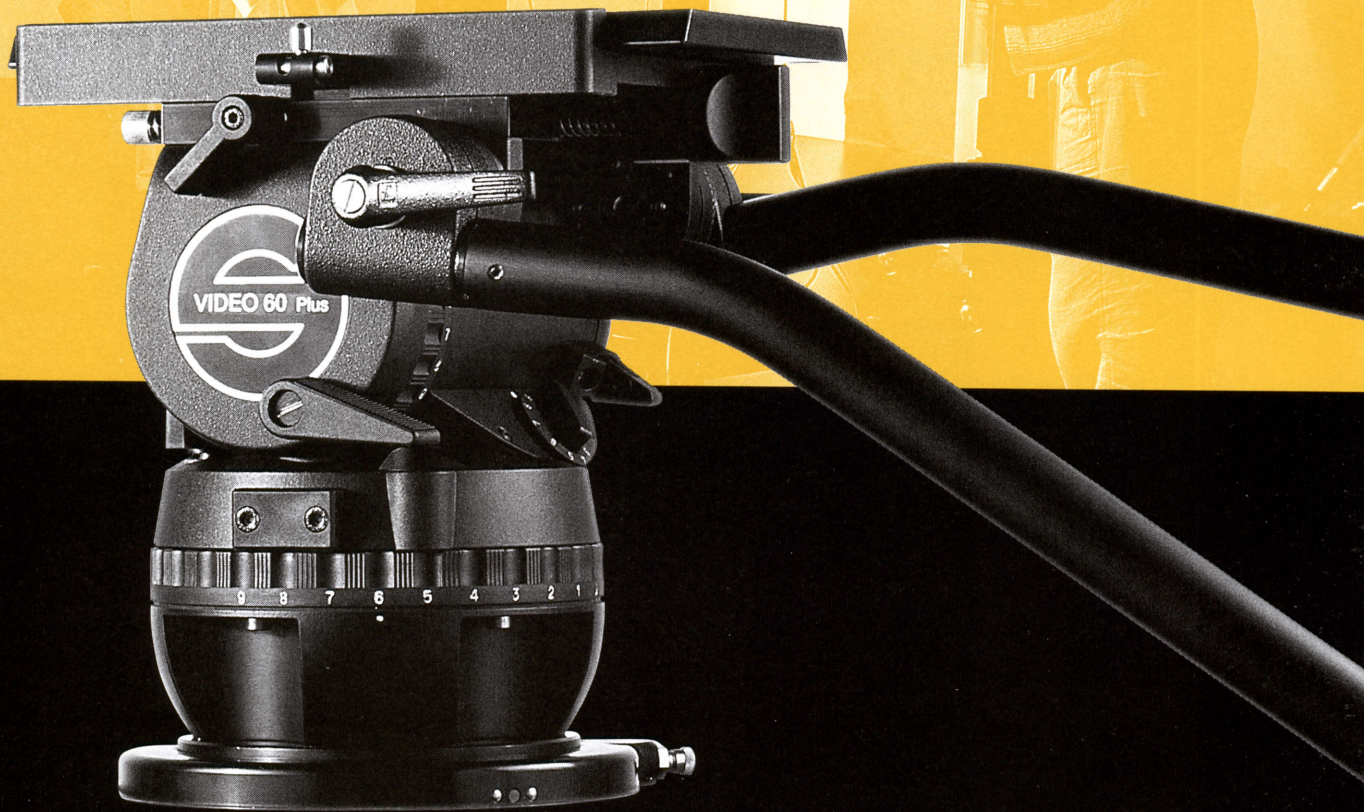
The Tape House's John J. Dowdell III has already been quoted in the trade press about his enthusiasm for the Spirit DataCine. In fact, Dowdell recently put his detailed review of the new film scanner on the Internet.

Craig Heyl, Crawford Communications' manager of film transfer services, reports that the Spirit will be used for high-quality, everyday film-to-tape transfers for commercials and feature films, for data transfers to Flame, Inferno, Fire or their new Cineon. A future use, says Heyl, will be for high-definition transfers. "This machine can be adapted to any standard we need, so it's future-proof," he concludes. ♦



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## Production Slate

compiled by Andrew O. Thompson

### Battle to Sway ATV Standard Heats Up As "Coalition" Enters Fray

The American Society of Cinematographers, the International Photographers Guild (Local 600), the Directors Guild of America and Panavision International L.P. have formed the Coalition of Filmmakers. Lawyers for the Coalition have submitted comments to the Federal Communications Commission (FCC) regarding the modification of standards for an Advanced Television (ATV) System for the United States. These comments in-

clude suggestions for a number of significant alterations in the ATV standards recommended to the FCC by its Advisory Committee for an Advanced Television Systems (ACATS). The Coalition has asked the FCC to delay its decision-making process regarding ATV standards until evidence supporting their recommendations has been considered.

"We are fighting to preserve the artistic integrity of 100 years of American motion pictures, and to ensure maximum creative freedom for the current and future generations of filmmak-

ers," says ASC Vice President Steven Poster. "We believe that our recommendations also serve the best interests of the American public. The decisions made by the FCC on this issue could affect every filmmaker and TV viewer for the next 50 years. That's how long NTSC has lasted, and it's not over yet."

The Coalition has suggested the implementation of an ATV standard which would specify that all motion pictures be shown in their original aspect ratios. Poster notes that this would be relatively easy to achieve. With a digital

### Restoration of *The Umbrellas of Cherbourg*

Director Jacques Demy's celebrated all-musical film *The Umbrellas of Cherbourg* (1964) has had its original vibrant colors restored under the supervision of Demy's widow, filmmaker Agnes Varda (*Cleo from 5 to 7*, *Happiness*, *Lion's Love*). This renewal entailed the creation of a new internegative. Photographed by Jean Rabier, *The Umbrellas of Cherbourg* stars a 20-year-old Catherine Deneuve and features no spoken dialogue. The film is currently playing at art houses across the United States; a home video release is planned for 1997.

*Umbrellas* has never been seen in its proper form in America, according to New York-based Zeitgeist Films, which is releasing the restored film along with distributor Fox Lorber. The quality of the prints shown in America during the mid-Sixties was poor because they had been fashioned from a dupe negative. At the time, this process was standard to American prints of foreign films. By the mid-Seventies, all of the existing U.S. prints were badly battered and had faded to pink. According to a Zeitgeist spokesperson, a rather shoddy print had been used for a 1986 U.S. video release.

Demy, however, had taken measures to protect this film from decay

from the outset. Says Varda from her home in Paris, "Jacques believed, and he was right, that *Umbrellas* would remain interesting to audiences for many years to come. He knew that Eastmancolor was sure to fade with time, and he was ready to do what needed to be done to keep *Umbrellas* in good shape.

"Following the editing in 1963, Jacques, who loved the vibrancy and saturation of the then-current three-color Technicolor process (which was too costly to use for the filming of *Umbrellas*), had Eclair Laboratories make three color-selected archival black-and-white positives from the original negative."

Each of these three black-and-white positives corresponded to a specific primary color; these were then re-combined to form a new color internegative.

Says Varda, "The three color-selected positives were stored at the French Bois D'Arcy archives, and when the rights to *Umbrellas* reverted to the family in the Eighties, Jacques began the restoration, which is immensely expensive. But Jacques was tired, and then he became sick and I took care of him. He died in 1990, and a year later I decided it was time to proceed with the restoration. The French Ministry of Culture lent my company, Cinema Tamarais, the needed money, which we will pay back according to a contract. It is delightful to know that 35 years later people are still, coming to see *Umbrellas*. It was Jacques

fervent desire that this could be so.

"The restoration took four months with just an editor and myself. I was the only one who could precisely remember the vivid colors that Jacques and production designer Bernard Evian had intended — violent reds and pinks and shocking yellows. I was sure of the colors from memory; I had been on the set and Jacques and I had talked about the colors often.

"Olivier Chiavassa supervised the re-compositing at Eclair Laboratories. It was done on their Seiki optical step printer, which was brand new at the time, so it took a bit of adjusting to find the exact sharpness and color. But the new original is better than the first American original! My best reward for all of the work is seeing the film the way Jacques intended it to be seen, and seeing other people once again share and enjoy *The Umbrellas of Cherbourg*," says Varda with satisfaction.

In order to reproduce the film's original contrast, Chiavassa flashed the Fuji 8501 raw stock used to create the new internegative. The new release prints were done on Kodak stock. No digital processes were employed in the restoration. Varda also supervised the refurbishing of the soundtrack (which was reconfigured into three-track stereo) with composer Michel Legrand.

— Eric Rudolph



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ATV transmission system all it would require is a descriptive header at the beginning of each film.

"Our recommendations will enable future audiences to see every film the way it was intended to be seen," Poster says.

The ACATS proposal specifies that all films must be shown in either the current 4:3 aspect ratio typical of NTSC and PAL, or the 16:9 aspect ratio anointed by a working group of the Society of Motion Picture and Television Engineers (SMPTE) in 1984. Poster points out that 4:3 translates to an aspect ratio of 1.33:1. "It has been 40 years since anyone produced a film in that archaic format," he says.

The 16:9 aspect ratio translates to 1.78:1. "No one has ever produced a movie in 16:9 format," adds Poster. "The ACATS proposal would require 'panning and scanning' every widescreen film produced for the cinema during the past 40 years, including alterations in both composition and camera movement."

Poster points out that narrative films produced for cinema and television provide a substantial boon to the U.S. economy. They are the nation's second largest export in terms of dollar value, with an extraordinarily favorable balance of trade.

"If you require panning and scanning of all films, it could have a chilling effect on producers' and studios' willingness to finance widescreen films," Poster says. "That could have a severe economic impact on the future value of American-made films."

The Coalition has suggested that no standards be specified for the dimensions of ATV screens. However, if a standard is set, they urge the FCC to specify a 2:1 screen, because that would provide an appropriate frame for viewing motion pictures in all widescreen formats. The more rigid ACATS proposal specifies a 16:9 screen for ATV.

Industry experts say that a 2:1 screen would be slightly more expensive than a 16:9, with a modest reduction in resolution. However, members of the Coalition contend that the ability to view films in their original aspect ratios clearly outweighs the disadvantages.

"With a flexible aspect ratio for content, and the evolution of technology for flat-panel TV screens, there are

no limits," Poster says.

Poster notes that the establishment of standards for a digitally-based ATV system provides a once-in-a-lifetime opportunity for the convergence of interactive multimedia computers and television sets with vastly improved image and audio quality.

The Coalition's proposal calls for the exclusive use of a progressive scanning format. The ACATS proposal entails a combination of interlaced and progressive scanning. Proponents of the ACATS position say that the use of interlaced scanning would be temporary until appropriate technology is available for producing sports, news and other live video programming. They also point out that there is a considerable library of news and other video program content archived in interlaced format.

Coalition members are skeptical of those claims. Their proposal to the FCC states, "... given the broadcast industry's historic reliance on interlace techniques and the wide-availability of interlaced-based equipment produced by foreign manufacturers, there is a serious risk that interlace could become the de facto transmission standard [if the FCC accepts the standard for transmission proposed by ACATS]."

"Progressive scanning would provide enormous creative advantages for filmmakers, and significant benefits for the public," says Poster. "There would be a remarkable improvement in picture quality. We would also have the ability to manipulate frame rates to create the illusion of speeding up or slowing down the passage of time. This would be a powerful new tool for visual storytelling on television."

Poster notes that progressive scanning is also an important key to linking the multi-media computer to the ATV set. Eventually, he predicts, it will be possible to order movies through the Internet and view them on computer screens. The public will also be able to use the computer and ATV set for home education, and for keeping pace with current events, by combining readable text with images and sound.

"We envision ATV as an open-ended system limited only by the boundaries of our imagination," says Poster. "We believe our recommendations would lead to aggressive competition between the consumer electronics and



Photo of Don Burgess, ASC, by Joel Lipton.

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computer industries. This would speed up the development and implementation of new technologies, and also provide cost benefits for consumers. The ACATS proposal would stifle competition."

Poster traces the roots of the evolution of ATV technology to Japan during the early 1970s, when NHK and various companies in the Japanese consumer electronics industry cooperated on the development of a proprietary high-definition television system (HDTV). In 1982, NHK introduced all of the components of its proposed global HDTV system. Between 1982 and 1984, SMPTE studied the NHK proposal and suggested some alterations. For example, they recommended changing the original 15:9 aspect ratio to 16:9. In 1987, the FCC appointed ACATS to evaluate proposals by various companies and organizations vying to design a future television system for the United States.

In 1993, the Massachusetts Institute of Technology, Zenith and General Instruments demonstrated the feasibility of digitally transmitting HDTV signals. At that point, ACATS asked the seven leading electronics manufacturers to form a so-called Grand Alliance to make a coordinated effort to develop a digitally-based ATV system. Around that time, the National Association of Broadcasters, SMPTE and three consumer electronics trade associations funded the organization of the Advanced Television Systems Committee (ATSC), as the official ATV test center. ATSC played a large role in developing, testing and documenting standards incorporated in the ACATS proposal.

"Basically, all of the players involved in the official ATV research process were employed by companies or other organizations with a vested interest in the outcome," Poster observes. "From that perspective, the results were predictable."

In 1993, ASC president Victor Kemper appointed an ad hoc committee to study the possibilities presented by a digitally-based ATV system. Their recommendations were initially presented to the FCC in November of that year.

"They tried to ignore us," Poster says, "but we persisted. Our original proposal eventually provided the foundation for the Coalition's recommendations to the FCC. We have also received an enormous amount of support

from Steven Spielberg. Recently, Bill Blinn, the chairman of the Caucus of Producers, Writers and Directors, notified the FCC that they support our recommendations. There are some 230 members in that organization, who are responsible for producing a majority of the entertainment content on prime-time TV. In June and July alone, more than 150 directors and actors contacted the ASC to offer their support, including John Badham, Gil Cates, Robert Culp, Joe Dante, Richard Donner, Richard Dreyfuss, William Friedkin, Arthur Hiller, Dustin Hoffman, Lawrence Kasdan, Arthur Penn, Sidney Pollack, Robert Redford, Gene Reynolds, Mark Rydell, Martin Scorsese, Ridley Scott, Robert Wise, Bud Yorkin, Richard Zanuck and many others."

There is a similar coalition in the computer industry, consisting of Microsoft, Compaq, Intel, Apple and various other companies. However, despite the groundswell of support, Poster cautions that the issue is far from decided. Recently, an ad published by the Washington Post supporting ACATS was signed by the heads of the three major television networks, various consumer electronics companies, the trade unions whose members are employed by those companies and the trade associations they support. That one ad cost \$33,000.

"They have endless resources, and considerable influence in Congress and in the federal bureaucracy," Poster concludes. "The ad was designed to pressure the four FCC members to make a quick decision in favor of ACATS. But we aren't going to give up, because we believe we are fighting for the heart and soul of the film industry. There is too much at stake for us to be faint of heart. All we are asking for is a fair and open hearing."

— Bob Fisher

(Editor's note: The following fax numbers will help you express your own opinion regarding this issue. President Bill Clinton (202) 456-2461, Vice President Al Gore (202) 456-2685; FCC Chairman Reed Hundt (202) 418-2801, FCC Commissioner Rachelle Chong (202) 418-2820, FCC Commissioner Susan Ness (202) 418-2821; and FCC Commissioner James Quello (202) 418-2801. Please fax a copy of any correspondence to the ASC at (213) 882-6391.)







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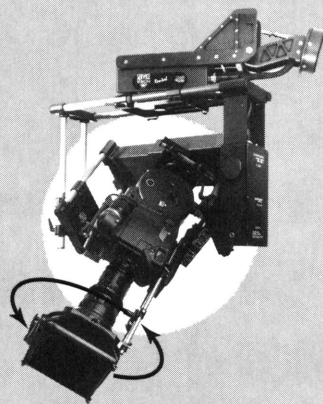
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### **IBC Widescreen Festival**

The second Le Nombre d'Or Awards, the only international festival devoted entirely to widescreen productions, will take place from September 12-15. Entries have been received from producers worldwide including Tokyo Broadcasting (Japan), Granda TV (UK), BRTN (Belgium), COM 4 (Spain) and Werner Herzog Film Production (Germany). The festival is part of the International Broadcasting Convention, the annual show serving the electronic media industry that is held at the RAI Center in Amsterdam from September 12-16.

Le Nombre d'Or celebrates creative and technical excellence in all forms of widescreen program making, and is devoted to television, multimedia, and videos shot in widescreen format (16:9) and electronically edited. In addition to 525, 625, 1125, and 1250 video, 35mm and Super 16 entries are encouraged when electronically edited and mastered.

The productions selected will be shown in the Widescreen Theater at IBC 96, where a distinguished international Jury will decide the winners of the Le Nombre d'Or Awards. The Golden Rembrandt is presented for the best overall program and the Silver Rembrandt to the runner-up. Awards are also given in other categories such as Best Direction, Best Photography, Best Sound, Best Editing and Best Performance.

The climax of the festival will be the IBC Awards Ceremony, which will take place on September 15 from 5 to 6 p.m. All visitors to IBC '96 are welcome to both the screenings and the awards ceremony.

IBC Office, (0)17-240-3839, Fax (0)171-240-3724.

### **Pinocchio Effects**

FrameStore in London recently composited over 50 shots using Quantel's Domino and Discreet Logic's Inferno systems in six key scenes for New Line Cinema's *Pinocchio*. The film was shot primarily in Prague, Czech Republic, using puppetry created by Jim Henson's Creature Shop. One such composited scene shows the wooden puppet boy coming to life, walking for the first time and then chasing pigeons across the rooftops. FrameStore effects producer

Drew Jones oversaw the process.

Says Jones, "The main puppet action was shot as motion control with five to six puppeteers, dressed in blue costumes, controlling Pinocchio. Ultra-violet lights were used to light the bluescreen costumes so that as few shadows as possible were cast. At the same time, this provided a good blue light to remove in post. The background plate was also shot as a matching motion-control pass with lighting effects."

The various shadows cast by the puppeteers, however, required further rotoscopic work so that the mattes of Pinocchio appeared clean. In addition, the strings attached to Pinocchio had to be erased.

Adds Jones, "The strings were fairly thin and removing the bluescreen puppeteers resulted in the strings disappearing. A separate pass was then required to paint back in the strings that were not visible originally. A shadow pass was also put in as Pinocchio walks past various pieces of furniture. Domino was used for all input and output scanning, and for the complete composite, although Matador was used in parallel for roto work on the matte and string passes. The finished result works extremely well with no giveaway as to exactly how we created a wooden puppet walking on his own, without any strings."

FrameStore, (0)171-208-2600, Fax (0)171-208-2626.

### **Phelan Art Awards**

The Phelan Art Awards in Film-making, given every other year in recognition of high artistic achievement and creativity in filmmaking, offers cash prizes of \$2,500 each to California-born filmmakers. The prize is open to all filmmakers born in the state, regardless of current residency. Three winners will be announced in October and honored at a reception and screening. The deadline for applying is Friday, September 13, 1996. Complete guidelines and entry forms are available (submit SASE to receive by mail) from the Film Arts Foundation (FAF).

FAF, 346 Ninth Street - Second Floor, San Francisco, CA 94103. (415) 552-8760, Fax (415) 552-0882.

### **First Kodak Vision Award**

Cinematographer Roxanne di Santo received the first Kodak Vision



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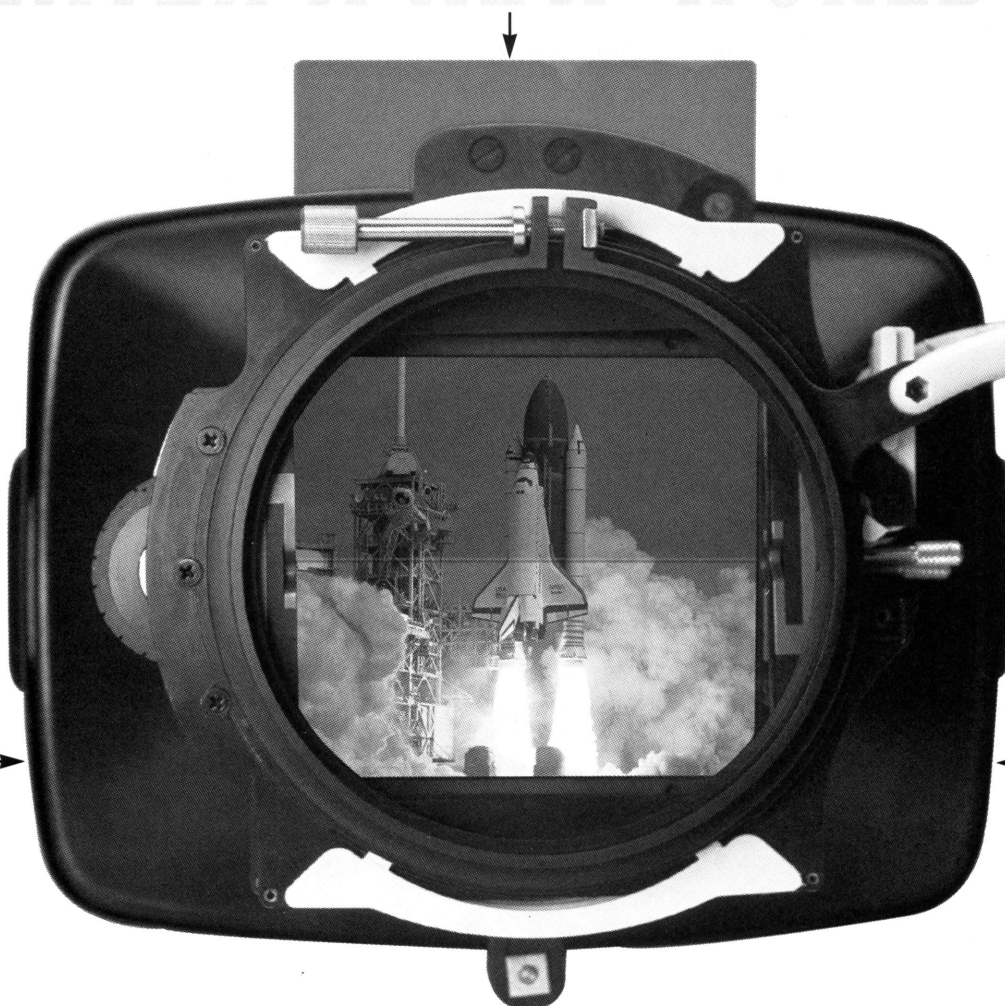
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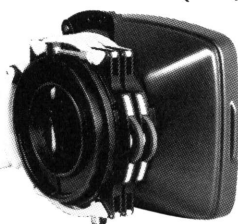
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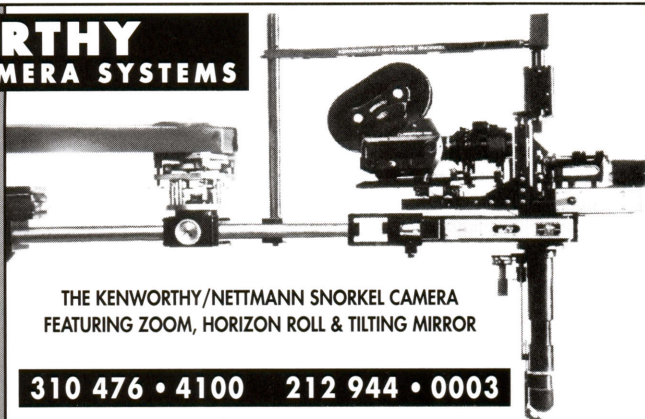
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Award from Women in Film at the organization's annual Crystal Awards Luncheon on June 21. The purpose of the award is to recognize and encourage emerging female filmmakers in the fields of cinematography, directing and producing.

According to Women in Film president Iris Grossman, "Roxanne is a great role model for aspiring women filmmakers. Without making an issue of her gender, she has persevered and made a career in a field where very few women succeed. Her resume shows her concern for women's issues, but more to the point, her work is of the highest quality."

Di Santo has photographed three features (*Young Goodman Brown*, *Kids of the Round Table*, *Frankenstein and Me*), as well as a variety of national television commercial campaigns for clients including McDonald's, Brooklyn Chewing Gum, Levi's and Michelob Dry. Her music videos include k.d. lang's "Trail of Broken Hearts," Arrested Development's "Everyday People," Melissa Etheridge's "2001," and UB40's "The Way You Do the Things You Do."

For more information about the Kodak Vision Award contact Alison Hofland or Megan Inglesby at CCS, (619) 438-5250, Fax (619) 438-5230, e-mail CCSPR@aol.com.

### Cinec 1996

The first International Trade Fair for Motion Picture Technology and Postproduction, Cinec '96, will be held from September 21 -23 at the M.O.C. in Munich, Germany. A number of hardware and software suppliers as well as creative service providers will be on hand to present the latest technologies for film, television and multimedia applications. Cinec'96 will also give movie-making professionals a look at the latest innovation and advanced developments in camera-support systems from automatic camera-control units, underwater camera housings and helicopter mounts to special-purpose lenses and filter systems.

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NOT LONG AGO, EVEN THE MOST rudimentary digital effect required a trip to one of the few pioneering facilities with the proprietary film scanner, software and digital expertise necessary for the job. Digital effects were expensive, time-consuming, and often didn't look very convincing. Now, just a few years later, there are off-the-shelf film scanners, film recorders, and software for sophisticated tracking and compositing, as well as 2-D and 3-D image creation and manipulation. Even better, more and more talented people are gaining experience at operating these sophisticated tools.

The democratization of visual effects has meant that postproduction facilities have been able to expand their graphics capabilities to include digital visual effects. Some high-end post houses now routinely create visual effects for television programs, commercials, and even feature films. To facilitate this work, many companies now have visual effects producers or supervisors on staff to interact with the project's director, cinematographer, and/or visual effects supervisor, and shepherd a job through to its completion.

*American Cinematographer* spoke with several such in-house visual effects producers to learn first-hand how they work with the director and cinematographer to produce a finished shot.

**525 Postproduction** offers Flame, Inferno, and Henry, among other effects capabilities, says producer Jenny Bright, who reveals that she goes over storyboards step by step with the director and Flame artist, often a month before the shoot. After preproduction, Bright and/or a 525 Flame artist will go to the set to observe the shoot and supervise effects elements. "The best-laid plans can go awry," says Bright. "Unexpected problems can arise. By being on the set, we can quickly answer questions that come out of those problems. Questions often concern whether we can accommodate it if the cinematographer can't light this object like that object, or what to do if the bluescreen doesn't fill the entire frame."

That's exactly the kind of support Bright provided on a recent Kinko's commercial directed by Ossie Parker and photographed by Michael Bernard. The commercial depicts a group of real men walking on an oversized pile of papers. By being on the set, Bright and Flame artist Alex Frisch were able to help the filmmakers overcome some practical jams. When it became difficult to get the camera high enough for one angle, Bright told Parker she could extend the set in postproduction. And when it was difficult to light a back corner of the "paper" set, Bright told the

sitioned with its own, different lighting.

On "Scream," a Michael Jackson video also directed by Romanek and photographed by Savides, the pop star, wearing a white suit, passed by windows behind which a starfield was to be keyed. To more easily separate Jackson from the background for a matte, Bright and Flame artist Frisch asked Savides to help engineer a shot that would save time and money in post. "I see my role as coordinating it all and listening," says producer Bright. "The conversation between the camera-

## Posting Prime Visuals

In-house producers can help bring a director of photography's final vision to the screen.

by Debra Kaufman

director she could take care of it in post. "[Bernard] didn't have to spend 45 minutes lighting that area," recounts Bright. "He did a five-minute pass in telecine timed for the dark area, and we wiped that into the rest of the shot in Flame."

The Flame's ability to add light sourcing can be a big plus for the savvy cinematographer. For Madonna's music video "Bedtime Story," directed by Mark Romanek and shot by Harris Savides, there was a scene in which 16 whirling dervishes spin around the room. Due to logistical and casting problems, Savides was limited to shooting a sole dancer against a bluescreen with beauty lighting. But, based on extensive advance conversations between director, cameraman, visual effects supervisor and Flame artist, the production team knew they could recoup in post what couldn't be done in production. With Flame, the artist was able to place the dervish in 16 different places in the room, each po-

man and the visual effects artist ensures that we are going in the same direction."

Andrea D'Amico is the digital effects producer for the Digital Film Group at **Pacific Ocean Post** in Santa Monica. This department offers 35mm and VistaVision scanning, compositing with Cineon, Inferno, and Flame, and 3-D computer animation with Alias/Wavefront.

D'Amico says she first strategizes the best techniques for a project and then acts as liaison between POP and the client through completion. That was the procedure for POP's work on *Independence Day*. Though Karl Walter Lindenlaub, BVK was the sci-fi film's director of photography, D'Amico reports that her closest contact was with director Roland Emmerich, who signed off on each shot. POP staffers also had close contact with the film's digital visual effects producer, Trisha Ashford. (See coverage in *AC* July 1996.)



The biggest challenge of working on *Independence Day* was the scope and complexity of the various shots, including several minute-long, multi-element opticals. To aid in what would be complex compositing, D'Amico assigned compositor Pablo Hellman to the production to oversee motion control and blue/greenscreen shots from the point of view of making each composite work properly. In the process of creating the effects, Emmerich occasionally changed his mind about the look of a shot, and POP was able to ac-

cinematographer, and visual effects supervisor can manipulate until their hearts are content — or their budgets are expended. "Our goal is always to give the director and cinematographer exactly what they're looking for," D'Amico adds. "It's necessary to know which look they're after because there are so many options. The biggest challenge is getting the whole team to share the same vision."

The importance of a shared vision holds for commercials as well. POP's executive producer for commercials, Michael

*Access Hollywood*, he worked with cameraman Peter Smokler to determine the camera's angle and movement for a greenscreen shot of a woman walking through a door (which would eventually be the bottom of the letter "Y" on the famous Hollywood sign). Hemmingway also advised Smokler that it would be easier to speed up the shot than slow it down in the digital realm.

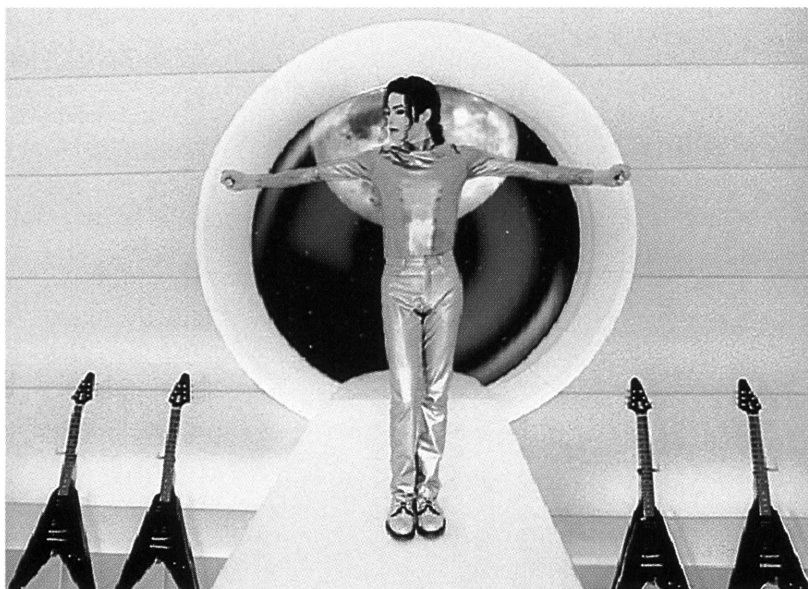
With advice from POP's composers, Johnson and Ben Gibbs, and telecine colorist Mike Pethel, Hemmingway will also advise on choreography, lighting, and framing. "I've seen elements shot wrong and become a nightmare," says Hemmingway. "Ideally, I catch it before it becomes a problem."

**Encore Video's** newly opened Santa Monica facility, along with its established Hollywood location, offer Flame, Inferno and Henry, as well as 2-D and 3-D graphics. Though the company has mainly provided effects for commercials and television projects, the expanded facility is now bidding on digital opticals for feature films, according to Michael Taylor, an executive producer of visual effects who moonlights occasionally as an effects supervisor. The limitations of the computer world often forms a basis for conversations between the post house, director and cinematographer.

For *The Haunting of Patricia Johnson*, an MOW from Finnegan/Pinchuk Productions, Taylor, director Larry Shore, and producer Lori Taub went through the boards to decide how the effects should work creatively. Taylor next had to determine how to achieve the agreed-upon effects with the tools at his disposal. When cameraman Brian England came on board, he and Taylor had numerous conversations about film stock, filters, and the way England planned to shoot the effects elements. "There are limitations to what I can do, so I have to tell him what we need," explains Taylor. "It's a very intimate relationship."

For a recent Wise Potato Chips commercial, Taylor had extensive conversations with direc-

*On "Scream," a Michael Jackson video directed by Mark Romanek and shot by Harris Savides, the pop star, wearing a white suit, passed by windows behind which a starfield was to be keyed. To more easily separate Jackson from the background for a matte, 525 Postproduction producer Jenny Bright and Flame artist Alex Frisch asked Savides to help engineer a shot that would save time and money in post.*



Courtesy of 525 Postproduction

commodate the director by manipulating the shot to match his vision of it.

For example, in half a dozen scenes, to enhance or correct a perspective, POP inverted an image of the Mothership interior and then tiled the image to extend it to the bottom of the frame.

POP also spent a great deal of time creating and tweaking the shadows that the enormous alien Destroyers cast over Earth's major cities, a task made difficult by the fact that there was no real-life model to serve as a reference. Another challenge was ensuring continuity with all of the shadow shots, including those created practically.

D'Amico points out that the extreme interactivity of the current digital tools creates a conundrum: Though anything can be created, it also means that the director,

Hemmingway acts as a liaison between the director and/or cinematographer and the POP talent pool. He stresses the importance of preproduction meetings, which help the POP artists understand what the filmmakers want to accomplish.

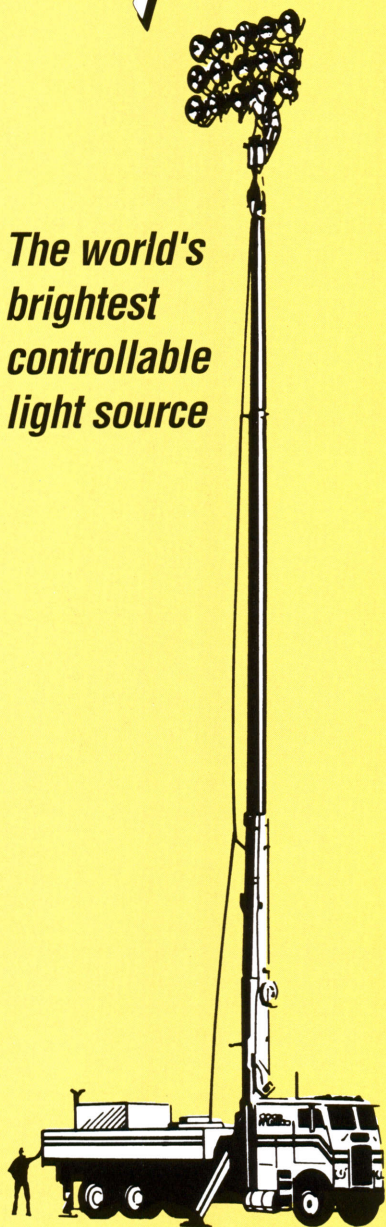
This "shared vision" is so important, he notes, that directors and cinematographers often develop a strong level of comfort and trust with a specific digital artist. For example, commercial director Joe Pytko frequently turns his compositing over to POP compositor Kristen Johnson, who often goes on location with him as the facility's visual effects supervisor.

Hemmingway's role is often that of advisor, informing directors and cinematographers what can and can't be done in the computer. For a TV promo for the entertainment magazine program



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**On "Route 66," a commercial directed and photographed by Michael Karbelnikoff, Sight Effects composited footage of street lugers with background plates that were shot around the world to create a global speed competition.**

tor/cameraman Barry Dukoff about the spot's

lighting and shadows. "We had to light the computer-generated potato chip bag to match what he shot in live action," explains Taylor. "But I have limitations in terms of what I can produce lighting-wise, so we had to communicate to make sure that he lit his live-action set in a way I could replicate in CG."

On the set, visual effects supervisors have many methods at their disposal to guarantee that the elements will come out correctly. For a Compuserve commercial directed by Gary Johns, Taylor used laser placemarkers to make sure that the setpieces on a bluescreen shoot stayed in alignment. To help visualize CGI that will be added later, the supervisor can place a mock-up model on the set. "I have cinematographer friends who will now call me just to run something by me before they shoot," says Taylor. "I'm happy to do that. This side of the process is very involved, just as much as their side. With open communication, we can speak the same language somewhere in the middle."

**The Post Group** in Hollywood offers Cineon, among other visual effects capabilities. Creative director/senior compositor Peter Sternlicht reports that he can help test stocks to see which one will work for the best results with bluescreen and greenscreen shots. He'll also attend the shoot to verify that the lighting will work well for compositing in post. And, during the compositing session, using internal color-correction tools, Sternlicht will work with cinematographers to color-time elements to fit within a scene that is essentially created in postproduction. "I've worked with cinematographers



Courtesy of Sight Effects Inc.

who will participate in the digital post environment," he says. "They'll make one element a little bluer, a little brighter. Within certain parameters, we can almost re-light elements in digital compositing. This is an avenue in which one can really nuance individual elements within a shot, and make it that much better. We try to make it how they would have shot it, if the whole scene had been together in the camera."

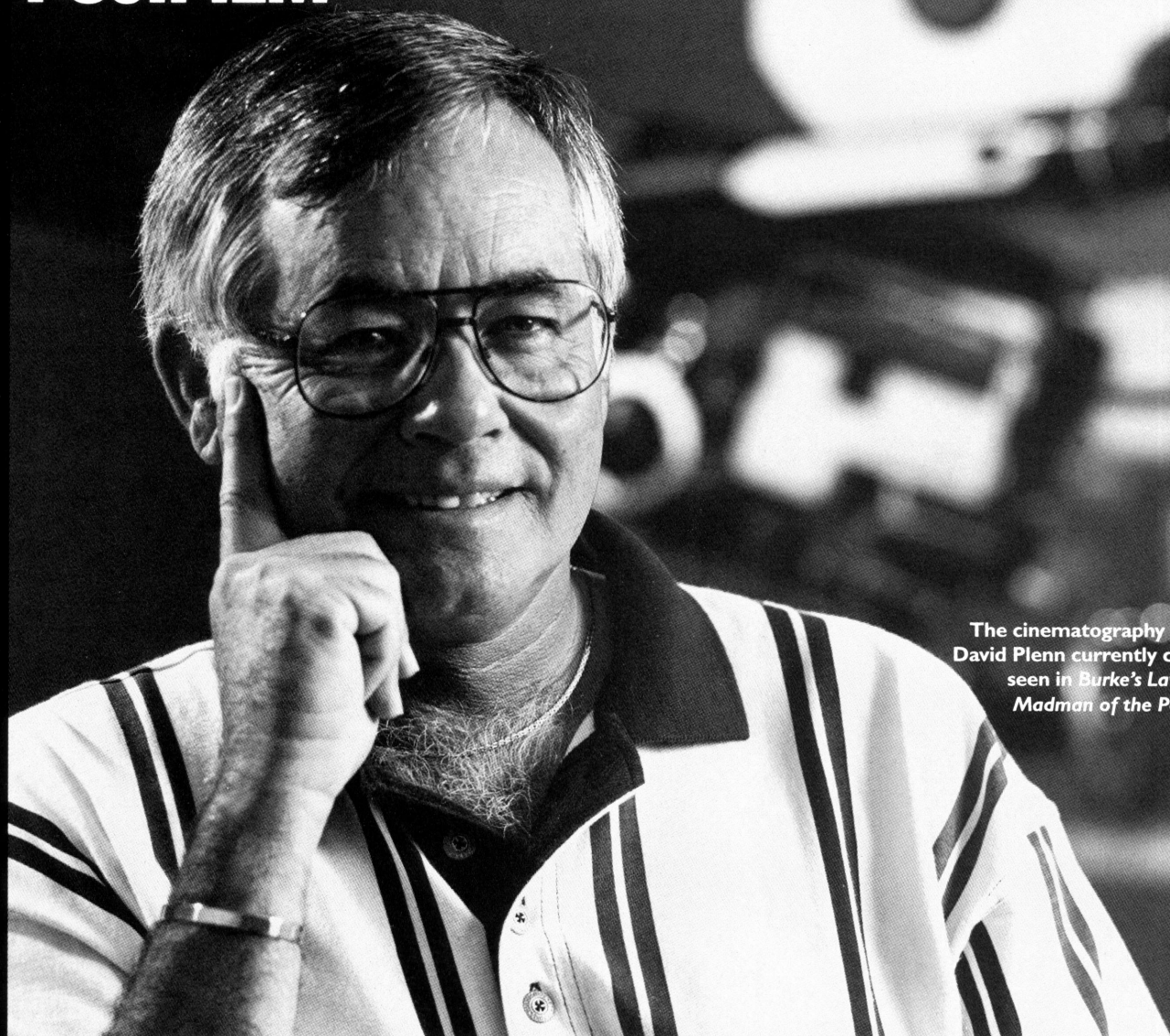
Sternlicht worked closely with cinematographer Steve Burum, ASC to produce effects for *The Shadow*, and with cinematographer Guillermo Navarro for effects in *From Dusk Till Dawn*. Sternlicht points out that even the busiest cinematographer can actually accomplish quite a bit in a single post session. Navarro's schedule was extremely tight, says Sternlicht, but they were able to correct and finish 14 shots in one day. With Burum, Sternlicht zipped through six shots in a few hours.

In addition to color-timing elements, the cinematographer is able to manipulate the image in postproduction in numerous other ways. Whether through Cineon or some other effects device, the image can be repositioned, re-sized, or changed in a variety of subtle ways. The cinematographer can even add camera moves in digital postproduction. On *From Dusk Till Dawn*, Sternlicht, supervised by director Robert Rodriguez, was able to take a locked-off shot of a woman turning into a vampire and introduce simulated "handheld camera" motion. "It's an option for any creative person, including the cinematographer, to take advantage of," says Sternlicht. "They don't have to give up on their par-



THROUGH THE EYES OF DAVID PLENN

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The cinematography of DP David Plenn currently can be seen in *Burke's Law* and *Madman of the People*.

Photo: Michael Bulbenko. Film: Fuji Professional Neopan 400

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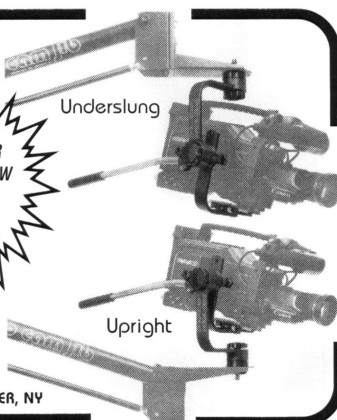
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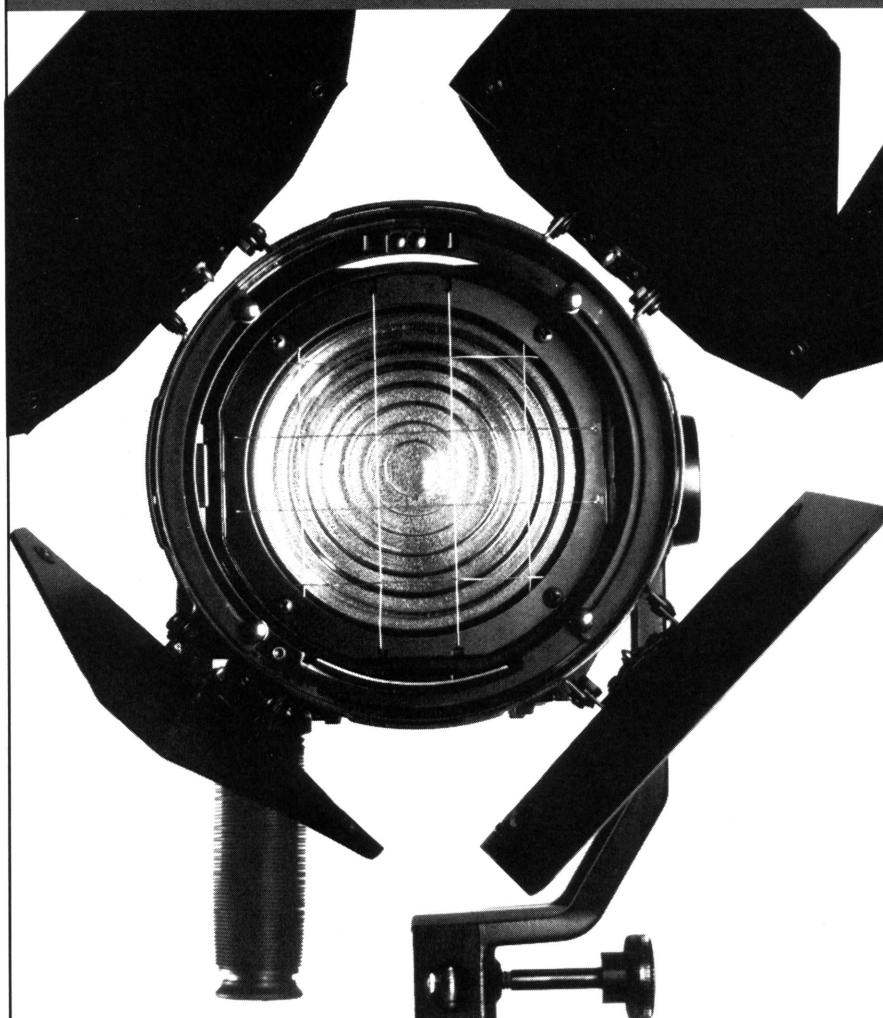
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participation in the effects shots once the camera stops rolling."

**Sight Effects** in Venice is a creative visual effects service co-owned by Alan Barnett and Melissa Davies. In 1993, Barnett and Davies, with chief engineer Rudy Hassen, opened up The Digital Lab to have in-house access to software/hardware tools. The company (which also services freelance effects supervisors) is equipped with Inferno, Flame, Flint, Henry, and SGI workstations using Prisms and Wavefront software. Sight Effects focuses mainly on commercials, but has recently added feature film effects compositing to its roster with work on *Kazaam*, *Executive Decision*, and *Apollo 13*, among other credits.

For "Route 66," the Mountain Dew commercial from director/cinematographer Michael Karbelnikoff, background plates were shot all over the world, most of them handheld, with camera moves. In order to successfully composite these plates with a group of street lugers (an asphalt-riding variant of the traditional ice-bound variety), who were shot at a raceway in Willow Springs, CA, Sight Effects designed all the angles of the shots by eye. "For 'Route 66,' the biggest parameter was trying to match the camera moves and angles in all the different shots to make it look as if [the spot] had been filmed entirely as live action, not created as a composite," recalls Barnett. "We had to simplify the camera moves and, at the [raceway] shoot, we had to set all of the parameters of what we could and couldn't do."

Sometimes those parameters will involve lighting, lenses and staging as well as camera movement. Barnett points out that Sight Effects will troubleshoot for potential problems that a director of photography might not think of, or even know about. For example, a wide-angle lens may create distortions that the computer cannot interpolate properly. A bluescreen shot photographed with smoke, or diffusion on the lens, could destroy the ability to pull a clean matte and require costly frame-by-frame painting in postproduction. Sight



Effects will work to block shots with the cinematographer and director in order to have objects and people positioned properly in front of the bluescreen. "Those are the things that we're there for," says Barnett. "If we know a problem will arise, we let them know and look into other options."

An effects-heavy commercial can result in a very close relationship between Sight Effects compositors and the director and cinematographer. Executive producer/visual effects supervisor Melissa Davies recently worked with director Marco Brambilla and cameraman Ward Russell on the Acura commercial "Elevator," in which a car emerges from a CG pod that breaks through a desert floor. The camera was always moving in a circular motion around the model, which made the shot more complex from Sight Effects' point of view.

"We figured out the scale of the model, the limits of the motion-control rig and the length of the camera moves and worked with Marco to design all of those moves and build a template for the entire job to be shot by," says Davies.

On the set, where Russell was shooting the car, Davies explained to him exactly how she was going to add CG reflections — information that affected how he lit the car in order to achieve the look he wanted. "We don't like to step on cinematographer's toes — they know what they're doing," concludes Barnett. "Our responsibility when we go on the shoot is to set up the effects so they work in post."

**Digital Magic** in Santa Monica is a post house/visual effects facility that works in both the film and video worlds. For film effects, the firm offers *Domino* and *Inferno*.

When director David Twohy needed to change the last sequence of his alien invasion film *The Arrival*, he worked with Digital Magic visual effects supervisor Ralph Maiers, using *Inferno*, to design a rough version of the end sequence's cavernous, monitor-lined control room.

Based on that provisional rendering, Twohy and his visual effects supervisor, Chuck Finance, set up a greenscreen shoot also supervised by Maiers. "There were very specific things about how the greenscreen shoot needed to be put together," reports Maiers. "The [control room's] console had to be split in half, shot two different ways and put together. The people in front of it had to be inserted. And the huge number of monitors had to be cut and pasted into the scene. To do that, we needed to replicate the video playback, which was synchronized for the shoot."

Maiers' main concern for this complex shot was that the CG elements were at the same angle and point of view as all of the live-action plates. In a scene riddled with dozens of greenscreens, Maiers also made sure that the greenscreen didn't spill onto the people moving in front of them due to the lighting. "Sometimes — if you're shooting an object, for example — it's much easier to light it twice or shoot it twice," says Maiers. "[You can] light it once for the greenscreen and a second time, from the same angle, with black. That way you're not getting spill and you still get your key."

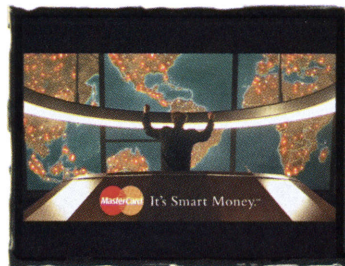
Maiers notes that sometimes cinematographers spend "considerable time and energy" to light a greenscreen perfectly when, in fact, the visual effects facility/post house only really needs the greenscreen well lit around where the objects or people are.

Like everyone else who was queried for this article, Maiers stresses that every post house visual advisor has a bag of tricks that can aid and support the cinematographer who asks. When he or she doesn't ask, the results can be costly. One recent project handled by the post house required an expensive "fix-it in post" — a \$50,000 re-shoot.

"All of this could have been avoided if Digital Magic had been brought into a discussion ahead of time," says Maiers who started his career doing film opticals. "It's important to sit down with someone in the digital world who can help guide you in how to maintain what you want." ♦



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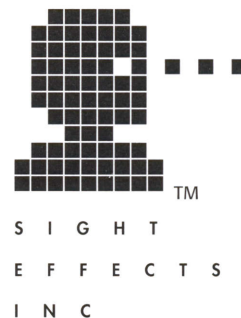


Acura "Elevator" • HKM  
Director: Marco Brambilla



Mountain Dew "Rt. 66" • HKM  
Director: Michael Karbelnikoff

## Visual Effects by:



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# Jazzed Up

Cinematographer Oliver Stapleton helps director Robert Altman capture the tones and tunes of the raucous Thirties in the note-perfect *Kansas City*.

by Eric Rudolph



WHILE MOST OF AMERICA WAS mired in the gloom of the Depression and Prohibition, one small midwestern city — Kansas City, Missouri — had a robust economy and free-flowing liquor. Against a backdrop of violent political corruption, gambling, prostitution and illegal alcohol, a new form of jazz developed that would spread throughout the world.

Watching the scene unfold from the balconies of the gangster-run black jazz clubs was a young K. C. native named Robert Altman, who would later become a controversial, outspoken and prolific film director. In his latest picture, *Kansas City*, Altman has vividly re-created his firsthand vision of this world.

The film takes place during two days in 1934, and revolves around the daylight robbery of a visiting black gambler by a white man disguised in blackface. The hapless criminal, Johnny O'Hara (Dermot Mulroney) is apprehended with the cash and taken to the Hey Hey Club, where he is held captive by the murderous, loquacious gangster Seldom Seen (Harry Belafonte). Johnny's scrappy wife, Blondie (Jennifer Jason Leigh), attempts to save her husband from a violent end by

**Dapper yet dastardly mobster Seldom Seen (Harry Belafonte) holds court at the Thirties jazz haunt the Hey Hey Club. The musicians in the background performed live with no playback, as Altman desired complete authenticity.**

kidnapping the laudanum-addicted Carolyn Stilton (Miranda Richardson), wife of local power broker and FDR adviser Henry Stilton (Altman stalwart Michael

Photos by Eli Reed, courtesy of Fine Line Features.



Murphy). Blondie will only return Carolyn unharmed if Henry successfully intervenes to save Johnny from "those no-good shines," as Blondie refers to her husband's captors.

The story, which director and co-writer Altman has unabashedly described as "slim," is mostly a device which allows the director to explore the milieu of a vibrant town enmeshed in deadly serious voter fraud and political power struggles. "The system in Kansas City then was perfectly corrupt. It was a town where the laws didn't apply," Altman says.

Contrasting with the brutal corruption is the music, which erupts blissfully around the clock. *Kansas City's* music producer, Hal Willner (who fulfilled that same role on Altman's *Short Cuts*), assembled a literal *Who's Who* of today's leading young lions of jazz, including James Carter and Joshua Redman (saxophones), Nicholas Payton (trumpet) Geri Allen and Cyrus Chestnut (piano), the legendary veteran bassist Ron Carter, Christian McBride (bass) and Kevin Mahogany (vocals).

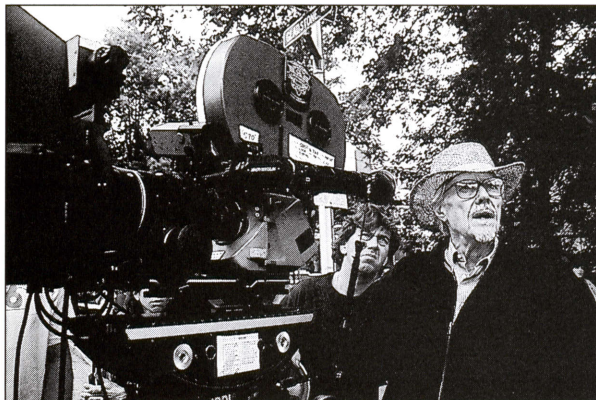
These musicians loosely portray the trailblazing giants of the era, including Lester Young, Coleman Hawkins, Ben Webster, Count Basie and Mary Lou Williams. In bringing these icons to swaggering life, the players offer an authentic blast of the vibrant, blistering, sweet form of music that mixed the area's traditional orchestrated ragtime with the rural blues of the deep South, creating a saxophone-dominated brew known and celebrated throughout the world as Kansas City Jazz. (The Kansas City style was also more widely known simply as Mainstream [pre-Bebop] Jazz, which is alive and quite well to this day.)

Altman is known for his freewheeling, zoom-laden camera style, which relies upon a docu-

mentary-like flexibility and looseness, but the auteur wanted a more formal look for *Kansas City*. Impressed with the visual style of Stephen Frears' movies, Altman sought out British cinematographer and frequent Frears collaborator Oliver Stapleton, who has lent his skills to the films *My Beautiful*

versity years."

At the age of 18, he set off for South Africa, "leaving home and going off on a little adventure that turned into a big adventure. I continued to make 8mm 'art' films at Cape Town University. I got a degree in psychology in 1970, and then I did a lot of documentary and



*Laundrette, Prick Up Your Ears, The Grifters, The Snapper, Hero, The Van, Restoration* and the upcoming *One Fine Day*.

The English native has been working behind a camera since he was nine or 10 years old. "I discovered my father's movie camera and a box Brownie," he remembers. "I learned film processing at 10 or 11, and was a keen photographer throughout my teen and uni-

versity years," he says.

"During my last few years in South Africa, I worked as a still photographer on a series of really dreadful drive-in comedies made in the Afrikaans language. They were so awful that the crews never even went to see them! But there was a movie camera and some lights, and I used to watch the cinematographers and think, 'That looks like an interesting job.' Still, I never dreamed I could do it, because it looked so complicated."

Stapleton later returned to England, where National Film School classmate Julian Temple lured Stapleton into the professional world. "He had already left school and was making *The Great Rock and Roll Swindle* with the Sex Pistols, and I shot some of the music sequences toward the end. Julian and I went on to be at the forefront of music videos in early 1980s." That period of his career concluded with the period musical

**Above: Dames in the frame.** *Laudanum* junkie and politician's wife Carolyn Stilton (Miranda Richardson) is at a loss for words as her feisty captor Blondie O'Hara (Jennifer Jason Leigh) contemplates Stilton's fateful future. **Altman (left) brought Stapleton aboard after being impressed by the cameraman's work with director Stephen Frears.**



feature *Absolute Beginners*, which Temple directed and Stapleton photographed.

Stapleton's association with Stephen Frears began when Chris Menges turned down the cinematographer's position on the director's 1984 film *My Beautiful Laundrette*. "Menges had just won an Oscar and was off to shoot *The Mission*, and at the last minute he passed on *Laundrette*," Stapleton recalls. "I was a stand-in, really, but shooting *Laundrette* helped launch my career."

The cinematographer's stint on *Kansas City* began with a phone call from Altman. The director immediately realized that he'd found his man, and hired Stapleton while they were still on the line.

Stapleton knew he had not been hired to duplicate the look of previous Altman movies. "Bob hired me because he wanted this film to have a different look; he didn't want it to look like *The Player* or *Pret-a-Porter* [*Ready to Wear*], which to me have a semi-documentary style. I told him, 'If you want *Kansas City* to have a more dramatic lighting style, I need to have marks for the actors, so I know precisely where they are going to be at all times. I can only light one shot [at a time]; I can't light a whole room effectively in this style.'

"It is not his usual way of working, but Bob did it because he loved the way the scenes looked," Stapleton adds. "I was very clear with him; at one point, I said, 'If the

actors don't walk into the lights I've set, then you *aren't going to see them!* And if you want to do a close shot, we'll have to stop shooting and move the camera and do a proper close shot, not just a zoom-in — if we zoom, we'll get a flatter, less dramatic shot."

Altman says that using marks for the actors was not an entirely new tactic for him, but notes that on *Kansas City*, "I didn't take in as much territory with the camera. I didn't turn around 180 degrees on Oliver that often, and we shot most of this film in a more conventional style. I let Oliver light; in fact, I took rehearsal and shooting time away from the actors, because they were so good and had their act so together. I said to Oliver, 'I'll give you this extra time to light, but if I ever see that you're just messing around — if it's just pretense and it's not helping my picture — your extra lighting time will be given back to the actors.' I let him have the time to light as long as he was delivering, and he always did; he did some great stuff for me on this picture."

Altman was at a loss to be more specific when asked to assess the stylistic qualities that attracted him to Stapleton. "I just liked his work with Stephen Frears," he submits. "It's like asking a girl out on a date; something attracts you."

Once shooting began, however, Altman came to admire not only Stapleton's artistry, but also his straightforward approach to the job. "Oliver Stapleton is the

most sensible of any of the cinematographers I've ever worked with," the director maintains. "He talks sense, he does the work, and he's organized. He has a great feel for [filmmaking], and he's not pretentious. Everyone who was responsible for the look of *Kansas City* worked very closely and did a great job, including Stevie [Altman's son Stephen, who served as the film's production designer], [costume designer] Dona Granata, and Oliver. I think that teamwork shows on the screen."

Altman is known for employing family members, an issue that he addressed during his initial phone encounter with Stapleton. The cinematographer recalls, "When Bob hired me, he said, 'I might as well tell you right now that my son Bobby [Robert Reed Altman] will be the camera operator; do you still want the job?' I didn't know Bob Jr., so I couldn't comment; I said, 'Sure, no problem.' However, I was wary; [I wasn't interested in doing a job] where I would be told, 'This is the shot, now light it.' Once we started the show, Bob [Sr.] and I very often had highly charged discussions about the setups. There are many English cameramen who are not interested in setups — they work in the traditional English way and leave the setups to their operators — but I'm not one of them. I'm much more of an American-type cinematographer. But with that said, I can tell you that Bob [Jr.'s] operating was fine. He has a good relationship with his father, which was obviously an advantage for me; I didn't have any complaints, even though Bob Jr. had only recently graduated from first AC; this was his first or second picture as an operator, and his first in that capacity with his dad."

Stapleton had repeatedly been warned that Altman was a difficult director for cinematographers to work with, but he found that reputation to be unwarranted. "We had great chemistry, we got on wonderfully, and I think I had a good feel for the type of picture he was trying to make. *Kansas City* is the best film I've shot in terms of a particular coherence of photography. I often go through an internal

*Damsel-in-distress Carolyn Stilton stares deep into her soul. Says Stapleton, "Most of the lighting in Kansas City is direct, the way that classic black-and-white films are lit."*





beating-up process when I complete a film. But when I finished timing *Kansas City*, I was just grinning from ear to ear."

Stapleton adds that he admires Altman's maverick stance, particularly his insistence upon artistic integrity. "Bob's first words to me were, 'I don't care if no one sees this movie,' and I just thought, 'Great, I like this guy.' Of course, he does care deeply if people go to see his movies. What he meant was that he was not making this movie for the studios; this was for us."

The look of the film was influenced by a desire to be consistent with photographic images from the Thirties. To achieve that goal, Altman employed a visual strategy similar in spirit to the one he adopted while filming 1971's *McCabe and Mrs. Miller*; on that picture, he and cinematographer Vilmos Zsigmond, ASC evoked the Old West's drab, dusty ambience by flashing the film. In the case of *Kansas City*, Altman relates, "I was trying to get the color out of the film. Most of these period pieces look fake if they're done in color at all, because all we have ever seen of this period are black-and-white photographic images. When we see something in color that's set in the Thirties, it doesn't look real. I was trying to evoke and maintain the feeling for the audience that [the setting] was real."

Stapleton followed the director's logic in his thinking. "Initially, I was influenced by the idea that a film set in the 1930s should have desaturated colors; *The Cotton Club* [shot by Stephen Goldblatt, ASC] came to mind. But I was very keen on not having what I call a 'brown and white' look. I wanted desaturated colors and full, deep blacks," Stapleton says.

"In the back of my mind, I had registered that Kodak had brought out a stock known as 5287, a low-contrast film designed primarily to get around the old problem of tape transfer and the resultant increase in contrast. I tried flashing the 5287 with the VariCon and the Panaflasher, but neither gave me what I wanted. I then thought, 'Suppose I make a very soft negative and a hard print?' That gave me the notion to use the



Production designer Stephen Altman's speakeasy strip. Juke joints, billiard clubs and one-hour hotel rooms fostered debauchery during the time of Prohibition, the era in which *Kansas City* is set.

5287 with an ENR-type bleach-by-pass process, an approach pioneered by Vittorio Storaro [ASC].

"The bleach-by-pass process we used is strictly a printing process; there is no effect on the negative at all," Stapleton explains. "The process of bleaching out the silver is skipped, and the essential effect is to make the blacks a lot blacker. Secondarily, it veils the sharpness of color so that primary colors will not be shrill or postcard-like. Once I sold Bob on the idea of how the film would look with the bleach-by-pass process, he got very excited. It was charming and wonderful how enthused he was!"

The film lab CFI was assigned to produce bleach-bypassed dailies so that the creative team would know all along how the technique was affecting their work. CFI's Art Tostado explains, "In our bleach-by-pass printing process, the bleach tank is filled with water, so the silver that is still in the print at that point stays there. We do not use the additional step of a second, black-and-white developer, which the ENR process uses."

(Director David Fincher and cinematographer Darius Khondji, AFC took a different tack on their 1995 collaboration *Seven*; the duo used a bleach-by-pass process and a second black-and-white developer, in addition to overexposure by about a stop and occasional flashing, to increase color saturation. See AC October 1995 for details.)

The bleach-by-pass process

does have other effects. As Stapleton notes, "The tonal range shrinks. If you don't account for that in your photography, your day exteriors will look fine, but in night shots you won't see anything. The blacks go very black, but so will all the detail. Normally you would be working with a contrast range of five to maybe eight stops. To shoot for this process effectively you have to limit yourself to a range of about three to four stops." To help produce his desired soft negative, Stapleton tended toward slight underexposure.

"I lit *Kansas City* in a narrow tonal scale, almost as if I were lighting for video," Stapleton reveals. "When you looked at the lighting on the set it was appalling — frighteningly low in contrast and overlit. Of course, when the process kicks in you have fantastic contrast; the richness is very apparent in the film, but not at all on the set. For the first few weeks on *Kansas City* I was at sea, because I had to relearn the entire visualization process under a new set of rules."

Despite the flatness of the lighting, dictated by the contrast enhancement of the bleach-by-pass process, soft, broad lighting was avoided on *Kansas City*. "Most of the lighting in *Kansas City* is direct, the way that classic black-and-white films were lit," says Stapleton. "This whole business about lots of tracing paper and diffusion is a product of modern color photography. It has its place, but for *Kansas City* I wanted a more



**Carolyn Stilton amidst a kitchen's noirish lighting scheme. While Stapleton's lighting is atmospheric, he planned that it "should look invisible and coherent and be completely in tune with the acting, the design and the story."**

classic look with single shadows. People will see a movie shot entirely with soft light and not know why it's dull; in part, it might have felt boring because visually it had no texture. With soft lighting, everyone looks the same — where's the drama, contrast and variation?"

While *Kansas City* looks rich and is beautifully photographed, there are very few shots which call attention to themselves — a result that was part of the filmmakers' plan. "Lighting should look invisible and coherent and be completely in tune with the acting, design and the story," Stapleton maintains. "I used to think, 'I don't have a style, I can go out and do anything,' but now I realize that I do have a style, and it is an invisible style. There are directors for whom lighting and design is the primary focus; Ridley Scott comes to mind. Some of the films people like Ridley make are good and some are not, but I'm not the guy they should hire to shoot them."

Stapleton was determined to avoid Altman's propensity for an abundant use of zoom shots. (An informal review of Altman films revealed that in some, such as *Short Cuts*, it can seem as if every other shot includes a zoom.) "Bob and I managed to come to a very reasonable agreement about the zoom, which was that we didn't use it very much!" says Stapleton. "I entered into those discussions very early on in prep, because I knew the use of the zoom would be an issue."

"For years I would simply refuse, most of the time, to put a zoom on the camera, let alone zoom [within a shot]!" the cinematographer adds. "However, I did move into Bob's territory somewhat on this film. I decided that I

would put a 5:1 zoom on the camera, but it was [a Canon K-35] 5:1 that I know very well because I own it. I knew it would give me the sharpness and the precision of image that I wanted. I also felt that Bob would be less comfortable if there wasn't a zoom lens on the camera. I thought that putting the zoom on the camera would help Bob feel as if he were making one of his [usual] movies."

"One of the film's few Altman-style zoom pull-outs occurs in a train station," he relates. "Miranda comes out of the room in which she's been kept, and finds a maid standing guard in the other room. We did this rapid pull-out

non-specific way, the camera can suddenly be moved up or down or sideways by just pushing it, but it's not an exact technique, so it doesn't lend itself to a precisely framed film like *Kansas City*. On the first day of the shoot, Bob suggested doing it, and I reluctantly agreed. But our first tracking shot came out wobbly, and we put [the jib arm] right back in the box, never to be seen again!"

Assessing Altman's preference for such moves, Stapleton says, "All power to Bob — he's made a lot of really fine movies that way, films that I've admired and studied. His framing is such that you feel that you're all human

beings watching a movie made by human beings, who are standing behind the camera. Bob will not work with a remote head under any circumstances. He hates the idea of the cold mechanical eye; it is something that he's fought against in all of his movies."

Stapleton

has a few technical

preferences of his own, one of which is his unequivocal enthusiasm for dimmer boards. "If you hire me, you hire a dimmer system," he says. "If I want the light warmer, instead of saying, 'Go up on the ladder with some 1/4 CTO and clips and mess about,' I'll just say, 'Take it down on the dimmer 20 points or so.' It is another tool which gives each lamp head much more versatility, both in light intensity and color temperature. It may involve a lot of pre-rigging and more crew members, but I feel I'm doing the show a favor because we'll eventually save in terms of the time it takes me to light a set. If I take 10 minutes less to light each scene, that is serious money saved — an extra gaffer to lay cables from each lamp back to a dimmer on a pre-light day is a much better option."



from Miranda's face. I didn't want to do it, but I said, 'Okay, but we'll shoot another way around it.' We did a cross-shot from the other side to cover it. At the time, I thought the zoom shot would be self-conscious and kind of annoying. Bob left it in, and when I looked at the movie I thought it really worked. I came off the film with a new understanding of what can be achieved with the zoom; it's been added to the way I think."

Another favorite Altman camera technique is the use of a jib arm as the main camera support. Stapleton notes, "Bob actually owns the jib arm he uses; it's a tool he has used extensively on the last few films. A jib arm lends itself to organic movement in the hands of an operator who is familiar with the technique. If you're working in Bob's slightly improvisational,



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Cash money exchanges hands as racketeers trade scams in the shadowy backrooms of the Hey Hey Club. Stapleton eschewed the use of gels in favor of a computerized dimming system that ultimately saved production time.



Stapleton also likes to use equipment with which he is extremely familiar, and toward that end he owns a complete set of Canon K-35 lenses, which he says are "sharp but forgiving. They're not razor-sharp like the Panavision Primos, which from a scientific perspective are probably the most advanced lenses in the world. I expect one could measure the Primo lenses and then announce that they get the prize for sharpness, resolution and contrast. But the price to pay for that, which is unfortunate, is that if you make one part of a frame intensely sharp, whatever is not in focus will look that much softer. If I were shooting a techno-thriller or a film about computers, the Primos would be my lenses of choice. However, I do not feel that they give the right look for a period picture. Some cinematographers say, 'Start with the sharpest lens and then soften it up by putting things in front of it,' but I feel you should start with the lens you feel is right for the job. I would never consider shooting a period film with Primos."

The A-camera on *Kansas City* was a Moviecam Compact. "I like the Moviecam very much,"

Stapleton offers. "It's a nice, well-designed camera that is a little less bulky than the Arriflex. I also really like the small video monitor that sits near the lens. It allows me to see what the operator is framing; I don't have to say to the operator, 'Let me look through the camera.' It also converts easily to Steadicam, and is very quiet; I don't think I've ever had a noise problem with a Moviecam. I admire Panavision, and I think they have the best camera system in the world. But I can't use my lenses on their cameras, and I haven't done that many pictures recently where I felt the Primos were appropriate, except for *The Grifters* and *Hero*."

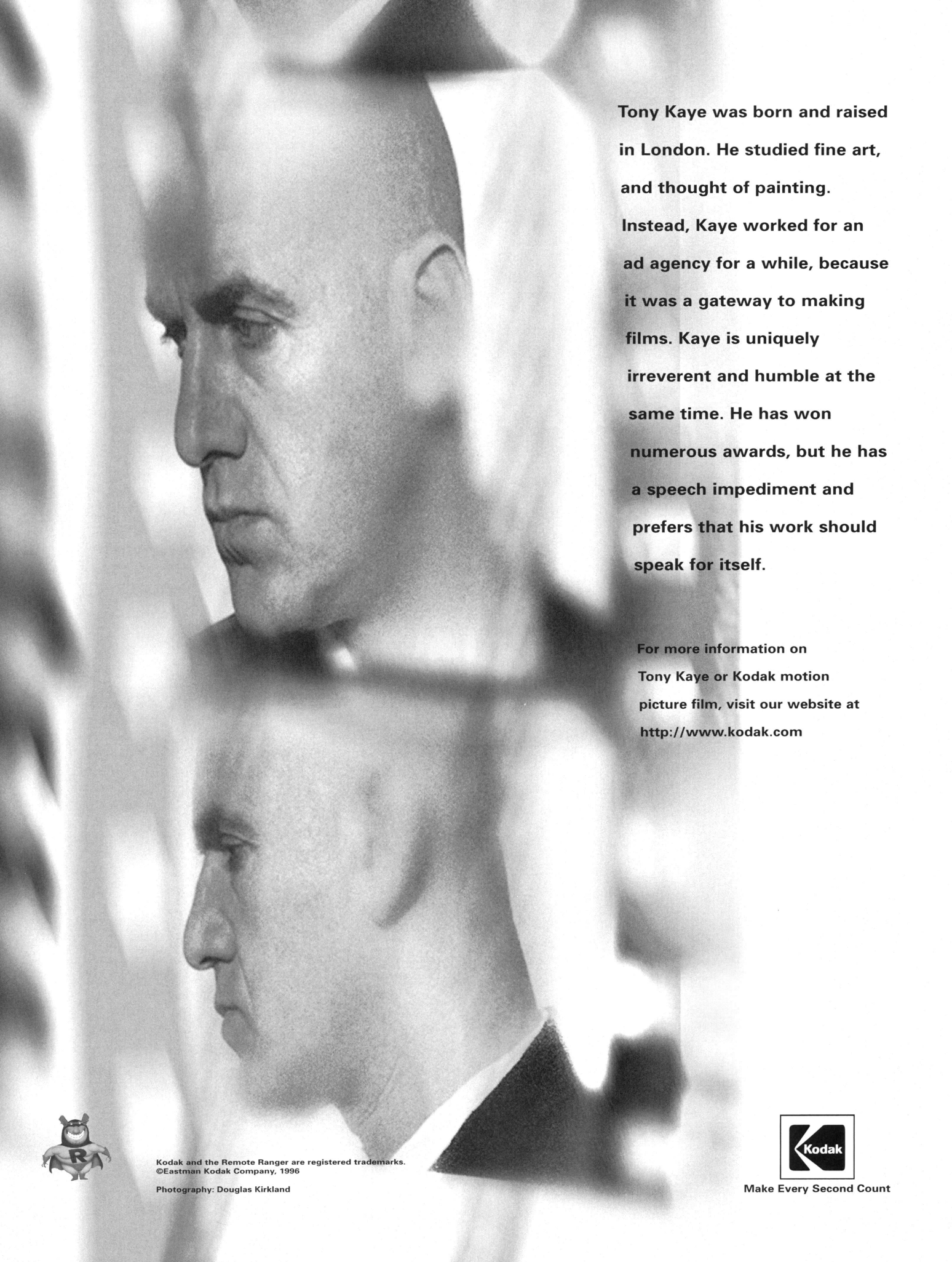
Very little filtration was utilized on *Kansas City*. "I occasionally used a Tiffen Soft/FX diffusion filter, which are like the old Mitchell glass diffusion filters, to enhance a light source and make it occupy a little more area in the frame," the cinematographer reveals. "The Tiffens are great with candles; I used them for all of the candle scenes in *Restoration*, as I find that naked candle flames look a little dead. Most ways of blooming light sources are a little too visible and look too much like filters.

These filters aren't like that, and they also don't affect the contrast, which I like."

*Kansas City* shows a lot of practical light sources onscreen, but as Stapleton points out, "The practicals didn't light anyone. I'd say we had three lights shining down from above for each practical you see. If you use practicals to provide actual light for the actors, the shade is going to burn out onscreen. There's a halfway measure which we did employ quite a bit on *Kansas City*, which is to dip one side of the practical bulbs in a paint solution, so that the side facing camera is at 25 percent of normal light output. The shade would look like a shade, and one would see the pattern; but the dipped practicals would read no more than two stops above key level, and they wouldn't burn out onscreen."

One of the biggest challenges of the project was its music sequences. Altman insisted that these scenes be filmed live, with no music playback. "Everyone else on the planet would've used playback, but not Bob Altman," says Stapleton. "He doesn't want musicians pretending to play, he wants them really playing. There was no





Tony Kaye was born and raised in London. He studied fine art, and thought of painting. Instead, Kaye worked for an ad agency for a while, because it was a gateway to making films. Kaye is uniquely irreverent and humble at the same time. He has won numerous awards, but he has a speech impediment and prefers that his work should speak for itself.

For more information on Tony Kaye or Kodak motion picture film, visit our website at <http://www.kodak.com>



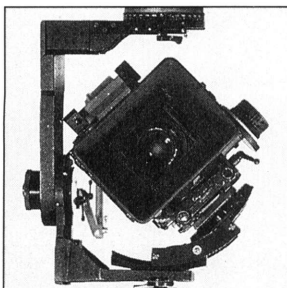
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- Weight : (manual) 3.5 kg/7.7 lbs
- Weight : (servo) 40 kg/8.8 lbs
- Rotation center : (h) 45 m/m
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playback at all — not even for inserts or close-ups. If a musician was playing in a shot, it was done live on the set."

At the Hey Hey Club set, Stapleton recalls, "We had three cameras; the operators were linked to Bob and myself by a radio setup. We had three monitors, and Bob and I sat close to each other and watched them. I told the operators what to do, as they were unaware of what the other cameras were doing. If Bob saw something he didn't like, he'd bang his finger on a monitor and look at me and point; then I'd start whispering something else down the headphones to the operators! We did each number twice; we didn't have a lot of takes, but we used a lot of film, because we filmed whole numbers over a 10-day period."

The live audio recording involved some extra preparation. "Microphones were hidden in music stands, and on the backs of chairs," Stapleton recounts. "Of course, these days they have these amazing, tiny, brilliant mikes. We did a lot of work to make sure we wouldn't see the mikes or their shadows."

Another major concern was the quiet coexistence of the multitude of thick cables from Stapleton's large light dimmer board and those from the live sound recording gear. "Hum was a major concern. I made sure my lighting cables were all going one way and the sound cables the other. We plugged everything in and held our breath and turned it all on. Miraculously, we had no real problems; I think we had to stop once because of a little hum!"

For Altman, the music forms the core of the picture, and even provides a basis for its visual style. "Frank Barhydt and I tried to write this film like jazz, and I tried to shoot it that way," says the director. "There is a suspenseful plot with a beginning, a middle and an end, but in between, I let the actors go off on these riffs, just like musicians do." ♦



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# Down Under in Jungleland

Director John Frankenheimer and cinematographer William Fraker, ASC make a last-minute landing on *The Island of Dr. Moreau*.

by Jean Oppenheimer

"WHY DOES IT KEEP RAINING?!" bellowed John Frankenheimer yet again. The question may have been rhetorical, but the director's exasperation was real, and thoroughly understandable. During their 75-day shoot in the Northern Australia's rain forests for *The Island of Dr. Moreau*, the director and his veteran cinema-

tographer, William Fraker, ASC, spent part of almost every day working through, around and in spite of torrential downpours.

The two men signed onto the film nearly a week into its scheduled production after the original director and cameraman left the project due to creative differences with the studio. "I had

nomination for Best Cinematography) marked Fraker's arrival as a major force behind the camera. His career had begun with film school studies at the University of Southern California, a long apprenticeship on such television shows as *The Lone Ranger* and *Outer Limits*, and time well-spent as Conrad Hall, ASC's operator on the films *The Wild Seed*, *Morituri* and *The Professionals*. Since his debut as a feature film director of photography on *Games* in 1965, Fraker's credits have also included *The Fox*, *Bullitt*, *Heaven Can Wait*, *Space Camp*, *Honey-moon in Vegas*, *Memoirs of an Invisible Man* and *Father of the Bride II*. In addition to *Rosemary's Baby*, the cinematographer has earned Academy Award nominations for his work on *Looking for Mr. Goodbar*, *1941*, *War Games*, and *Murphy's Romance*. Fraker has additionally served two terms as the president of the American Society of Cinematographers.

Based on the classic novel by H.G. Wells, *The Island of Dr. Moreau* has been filmed three times previously. The most famous incarnation is *The Island of Lost Souls* (1933), directed by Erle C. Kenton and photographed by Karl Struss, ASC. The story concerns a brilliant yet deranged Nobel Prize-winning scientist (played here by Marlon Brando) whose experiments in genetic engineering have produced a hybrid race of half-human, half-animal creatures. The doctor's unnatural activities are later discovered by United Nations lawyer Edward Douglas (British actor David Thewlis) who becomes stranded on the island after being shipwrecked.

The narrative unfolds in three primary locations: a raft adrift in the ocean, the rain forest, and Dr. Moreau's compound in the middle of the jungle. The Australian film crew was accustomed to shooting in the tropics, which helped immeasurably, as did the fact that Fraker had worked with gaffer Reg Garside, key grip Ray Brown, and camera operator Brad Shield two years earlier in Thailand on the action film *Street Fighter*.

The grip, electric and camera departments certainly had their

Right: One of Dr. Moreau's feline creations attacks! The detailed costumes, utilizing the latest in special make-up and animatronic technologies, were designed and built by Stan Winston Studios. Below (from left): costar Marlon Brando, William Fraker and John Frankenheimer take five in the tropics.



Photos by Peter Sorel, courtesy of New Line.

never worked with Fraker before," says Frankenheimer, known for such taut thrillers as *The Manchurian Candidate*, *Seconds* and *Black Sunday* and the recent mini-series *Andersonville*. "However, I had always admired his work. And *Rosemary's Baby* has exactly the look I wanted on this picture — a sense of foreboding and dread and authenticity."

That 1968 film (which was directed by Roman Polanski and earned Fraker an Academy Award





The "manimals" lionize actor Val Kilmer. For nighttime scenes, Fraker often used CTB gels on his HMIs to achieve a very deep blue—suggesting the island's "magical" effect.

work cut out for them on *Moreau*. "I'm difficult to light for," acknowledges Frankenheimer. "I use a lot of wide-angle lenses and a lot of camera movement."

Compounding the resulting light-placement conundrum, Fraker chose to shoot *Moreau* in Super 35 to achieve a 2.35:1 aspect ratio. "It gives you a big-picture look," the cameraman says of his decision to use the technique, "but allows you to use the spherical lenses, giving you a much wider range than the anamorphic process does."

With such a wide composition, however, it was difficult to situate lights in ideal positions. "We were always jockeying with the edge of the frame," says head electrician Garside. "That's especially true when we were using a Steadicam, and 40 percent of *Moreau* was shot with one."

For key grip Brown, one of the most formidable sequences in this respect was the film's opening, which finds Douglas adrift on a life raft in the middle of the ocean with two other survivors. A fight to the death soon ensues on the tiny craft.

Well aware of the difficulties inherent to shooting on water,

Frankenheimer refused to go to sea without a Wescam, a self-stabilizing, gyroscopic camera system originally developed for filming from helicopters. The director had used one before and knew of its value; when the boat rocked—which it frequently did on the rough waters of *Moreau*'s Great Barrier Reef location—the Wescam kept the camera steady and the horizon line constant. (See diagram on page 48.)

The spherical unit itself looks like a giant, white ping-pong ball that's three-and-a-half feet in diameter. Inside, a huge gyroscope which holds the camera is completely encased in the housing, save for the lens opening. The apparatus is designed to be suspended, and then operated by wire.

"It's operated just like a remote head," explains Fraker. "The camera is mounted on the end of the boom and you operate it via handles and a video monitor."

As a base for the oceangoing production, location manager/boats coordinator Murray Boyd retained an 80-foot dive boat of a type commonly used to ferry tourists to the Barrier Reef. All that Brown needed was something

from which to hang the Wescam, and a means of securing the entire mechanism to the boat's deck. Fraker's single admonition to his key grip was to give Frankenheimer as many variables and as much flexibility as possible.

"We wanted the Wescam [to be able to spin] 360 degrees so John could put the camera to the stern or starboard or port of the boat," explains Brown. "I consulted with the Wescam people in the U.S. They had never before had a crane mounted on a boat that could give a 360-degree swing. I outlined my plan to use a Krypton crane [an Australian-made location/studio crane, similar to a Movi-Tech Phoenix crane] with a 20- to 30-foot reach. Wescam was very encouraging about the concept, so we went for it."

As the seas off north Queensland can be quite ferocious, the 360-degree spin also allowed technicians to bring the Wescam back onto the deck so that magazines and lenses could be changed under a protective cover constructed on the bow.

Together, the Krypton crane and the Wescam apparatus weighed 1.7 tons. Concerned about





*A perverse deity, Moreau is worshipped by his hideous creations. The mutants were often backlit to separate them from their similarly colored rainforest environment.*

what might happen once the boat started pitching in the waves, the crew had to find some way to lock the mechanism down. On the advice of the boat's owner and an engineer, the grips welded a 30-foot long, 2"-diameter pipe to either side of the deck (all the rigging in Australia is based on 2" pipe and clamps). They also converted the crane base fittings to 2" pipe. Next, they fixed pipe from the crane base to the hull of the boat in eight separate places.

"Then we took a pipe that went right down through the deck and into the bilge area of the boat," says Brown. "The engineer made us a big pin and we pushed it [horizontally] through that, locking the

pipe in place. So no matter what kind of rough weather we got into, the crane couldn't lift upwards, which is what everyone was worried about."

Installing the crane proved to be a difficult operation, but once it was in place—with the camera settled in the Wescam sphere, the monitors set in position and the operators readied—the boat took off for the open seas.

"We left everything [on the crane] unlocked," explains Brown, "[which allowed us to] pan and tilt, going up and down or around 360 degrees. The grips could 'ride' the waves by lifting and lowering the crane arm. It's a bit like putting a see-saw on a boat. You could move the arm to counteract the waves."

"We had two grips on the bucket end and best boy grip Mick Vivian as a spotter. With his vast surfing knowledge, Mick studied the waves all day, advising me about approaching sets of waves and looking for that mongrel, or wipe-out, wave."

The system functioned quite efficiently. Not only could Frankenheimer and Fraker keep shooting during rough weather, but, as an added benefit, the camera could be lifted from one side of the boat to the other to compensate

for the sun's changing angles, to chase the light, and to keep the rig away from its own shadows. Furthermore, there was no need to put a camera on the raft itself in order to get close-ups, as Brown had fashioned the crane arm long enough that it, and the camera, could be dropped down until it was level with the raft.

The process went off without a hitch, but strong winds blew in during the afternoon, creating huge waves. "The crane held on great," recalls Brown, "but the sea was so rough that the gyro inside the sphere wasn't reacting fast enough to the ocean. We came into port that night and realized we had a problem. We didn't have time to sit and wait for smaller waves. So we went to the Australian special effects department and ended up taking a universal joint out of the back of a Range Rover gear box. We placed the joint between the top of the sphere and the four-way lever that was fixed to the crane arm. That enabled us to have an additional four-way movement, eliminating 40 percent of the wave."

Generators supplied power to the jungle location: a 350kva ran the main set; a 125kva ran a second area of the set; and a 200kva ran the Lightning Strikes equipment. At 240 volts, Australia

## Shapeshifting Titles

To set the appropriate disturbing tone for *The Island of Dr. Moreau*, director John Frankenheimer enlisted the team responsible for *Seven's* stunning opening title sequence: RGA/LA. A science-fiction thriller, *Moreau* concerns a geneticist who combines animals and humans in an ill-fated attempt to create the perfect life form. Frankenheimer wanted the credits not only to suggest these genetic changes occurring but to imply a certain violence about the process.

The concept of transformation intrigued RGA creative director Kyle Cooper. "I wanted [the sense of] someone changing into something without actually seeing what it was. Both John and I wanted to suggest an out-of-body

experience, not just cells churning but battling against nature."

Cooper envisioned a succession of quick cuts, edited to pulsating music: cells distorting under a microscope, animal eyes, lighting, skeletal fragments glowing through the haze of an X-ray.

The RGA team collected hundreds of visuals from a variety of sources—35mm film, 16mm, video, animation, photographic stills—and also created their own computer-generated scenes. They scanned as much as they could of the original source material from negative straight to high-resolution files. However, some of the older stock footage was only available on videotape. All of the material was taken to 525 Postproduction,

where visual effects artist Alex Frisch recreated the cut using Discreet Logic's Inferno software on an SGI Onyx.

"The first thing we did was to level all the elements, to create consistent color and grain structure," explains the French-born Frisch, an expert on Inferno and Flame. "The opening shots of the clouds came to us very monochromatic and we then enhanced the look and color."

The second step was to attain a consistent grain structure throughout the edited sequence. The 35mm film elements had nice, even grain structure, whereas the elements coming from D-1 had very big grain structure and the CGI elements had no grain at all.

"With Inferno there is now the ability to analyze and modify film grain," explains Frisch. "In this case, the opening



lian voltage is twice the U.S. standard, "so I was pulling half the amount of power that would be used in the States," notes Garside.

Dr. Moreau's sprawling compound was the film's biggest setup and presented a commensurate number of lighting challenges. The site included a main building — consisting of two living areas and a laboratory — and a series of veranda-like walkways, leading out from the central house to separate bedroom quarters.

The compound had to be constructed on private property bordering that of the government's lands, because Australia's national grounds cannot be disturbed or altered in any way. Although still in the jungle, the tract was located up against a rugged mountain. With that peak on one side and the national park on the other, there weren't many places for the crew to position their towering Condors for lighting from the outside.

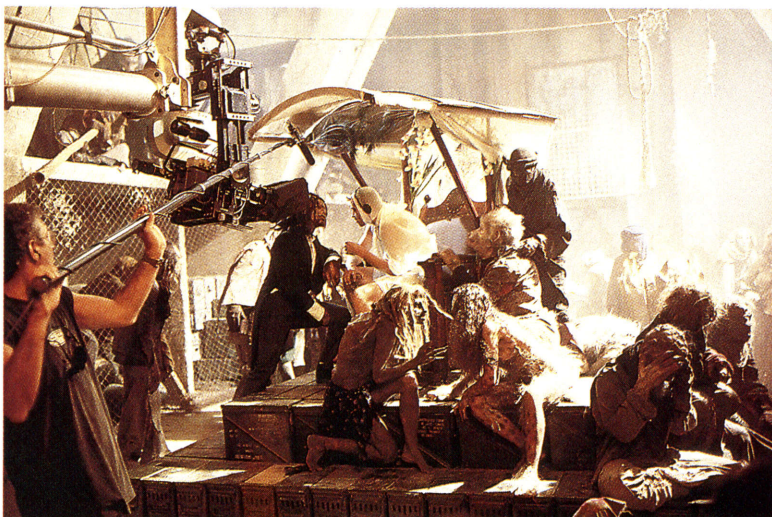
Frankenheimer's fondness for wide-angle lenses (most of the picture was shot with 17mm and 21mm focal lengths) meant that no interior scenes could be lit from the floor. "You could see 240 degrees in some shots," says Fraker. "So we placed a grid on the ceiling with scaffolding and lit from there."

Fraker knew from his ex-

perience on *Street Fighter* that Australian rental houses don't have the supply of larger lighting units in quantities that are so common in the U.S. "You can't just call up and say, 'I need three 20Ks tomorrow. They just don't have them. We had to bring in 20Ks from the United States.'"

The *Island of Dr. Moreau's* lighting plan was predicated on the fact that the film was shot in Super 35, and that Frankenheimer often called for use of the Steadicam. "As the Steadicam was going through shots, guys were pulling lights out of the way and pushing them into pre-picked spots that wouldn't be in the shot further along," says Garside. "And we had floating cutters all over the place."

The majority of the film's action occurs at night, so Fraker called for warm colors to augment the tropical locale. "We used CTO filters — quarters, halves and fulls," he says. "On the camera, I used a



**A power pod-mounted Panaflex Gold is craned in for a close-up of Kilmer. To satisfy Frankenheimer's need for movement and to overcome the rigors of the jungle, beach and ocean locations, Fraker made extensive use of remote devices and the Steadicam.**

filter pack of a half Tiffen Ultra Con and a half Coral. If we were strictly in moonlight, with no light from the compound and no incandescent lighting, we'd go for a little more blue. And if we had a mixture [of sources], we'd take some of the blue out and utilize the incandescent light — what I call the yellow light — that came from the house."

According to Fraker, the toughest shots were the transitions from daylight exterior to daylight interior. "The first time you go into Moreau's house, there is a tremendous exposure change, from f16 or 18 to f2.8." →

clouds were a reference for the piece. They had the best grain resolution and I matched all the grain to this shot."

The sheer quantity of material was staggering. The completed two-minute-and-forty-second composite contains 400 shots, most of which are only two to four frames long.

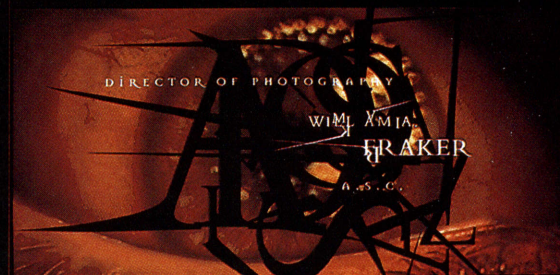
Two layers of animation were laid over the backplate. According to Jenny Bright, a producer at 525, the first layer consisted of shards — individual letters and pieces of letters — which flashed on and off the screen. The top layer of animation consisted of the text, the actual names of people, with spikes shooting out of the letters.

Part of the process was creating blur animation for both the film's title and the first few cast names. The words blurred out of focus, then into focus, then out of

focus again. "We also created a morph for the first shot after the opening clouds," says Frisch. "[It's] a human eye morphing into an animal eye."

RG/LA's Cooper was extremely pleased with the results, noting, "Alex's attention to detail and the way he color-corrects is just great."

Cooper had toyed with the idea of doing the *Moreau* titles by way of traditional opticals, as he did for *Seven*, but the sheer volume and complexity of the undertaking precluded that. "We needed the rendering power of Inferno," explains Cooper. "We wanted to really control the colors and the kind of look of all the individual shots. And Inferno is so interactive. That allowed us to do a lot of bizarre visual effects we might not have done if we had gone with traditional opticals."

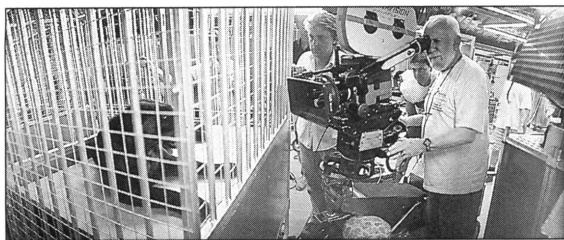


Inferno has only been on the market for a short time. "Although Flame can work at film resolution," says Frisch, "the difference between the two is that Flame works in 8-bit color depth while Inferno works in 12-bit color depth. Inferno gives the artist more latitude in modifying color while maintaining detail."

—Jean Oppenheimer

**Fraker's screen credit emerges from a dense collage of imagery.**



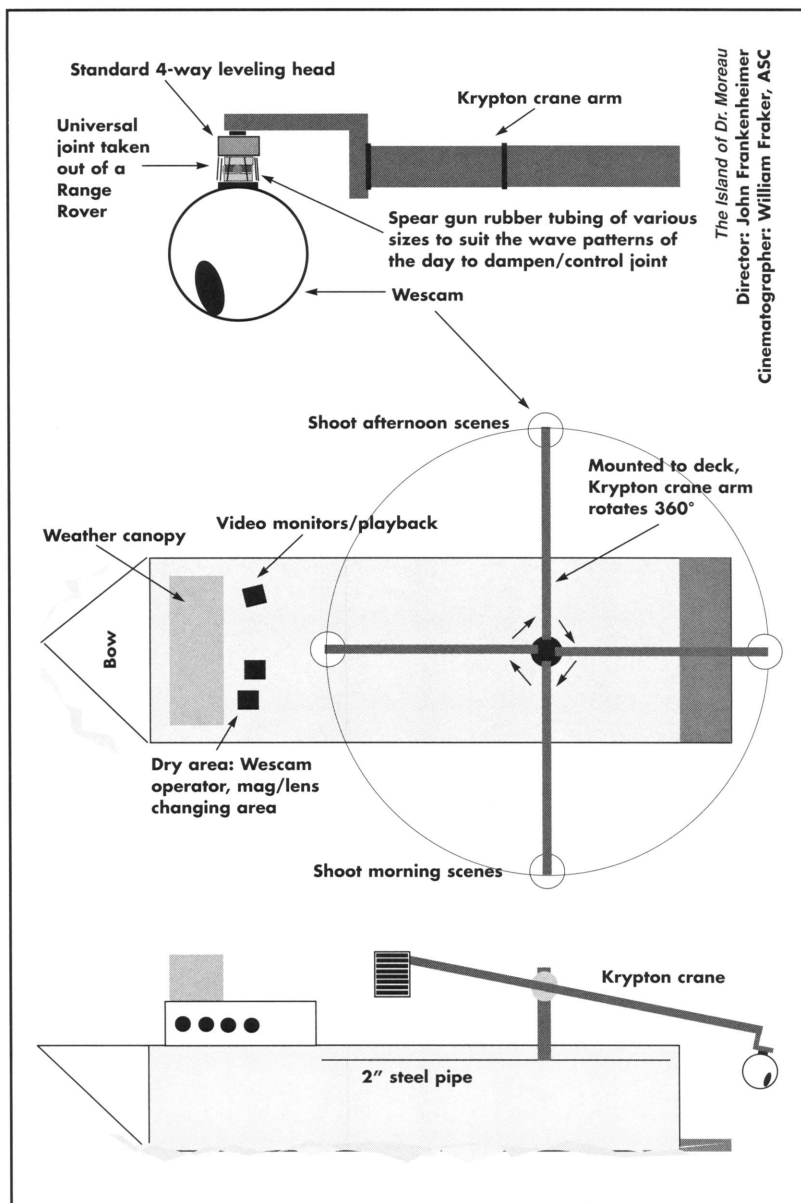


**Above:** Live animals enhanced Moreau's jungle isle. Fraker gets a close-up of the black panther that tortured gaffer Reg Garside with its "territory marking". **Right:** a diagram of the oceangoing Wescam rig devised by key grip Ray Brown and his team for the raft sequences. **Bottom:** The compound set was built on private land, as construction was forbidden on the Australian national jungle sites. The rain-soaked ground demanded extensive stabilization in order to bring in heavy cranes and cherry pickers.

Garside further describes the scene, saying, "A jeep containing Douglas (Thewlis) and Dr. Moreau's assistant, Montgomery (Val Kilmer), comes up the road, and the Steadicam is on the porch following as the vehicle approaches. Thewlis gets out of the jeep and steps onto the veranda while the camera follows him into the house and does a 360-degree turn with him inside. To do that, of course, you've got to do a stop pull. I think we used a doorway [to camouflage] the iris pull. Additionally, we had to light the inside of the house so you couldn't see any lights from the veranda as the actors went in."

Garside suggested putting all of the lights in the compound on one master dimmer board. Praising this plan, Fraker adds, "We [pre-lit] that whole set and could then control different parts of the compound through the dimmer board. Even the practicals were [hooked up]."

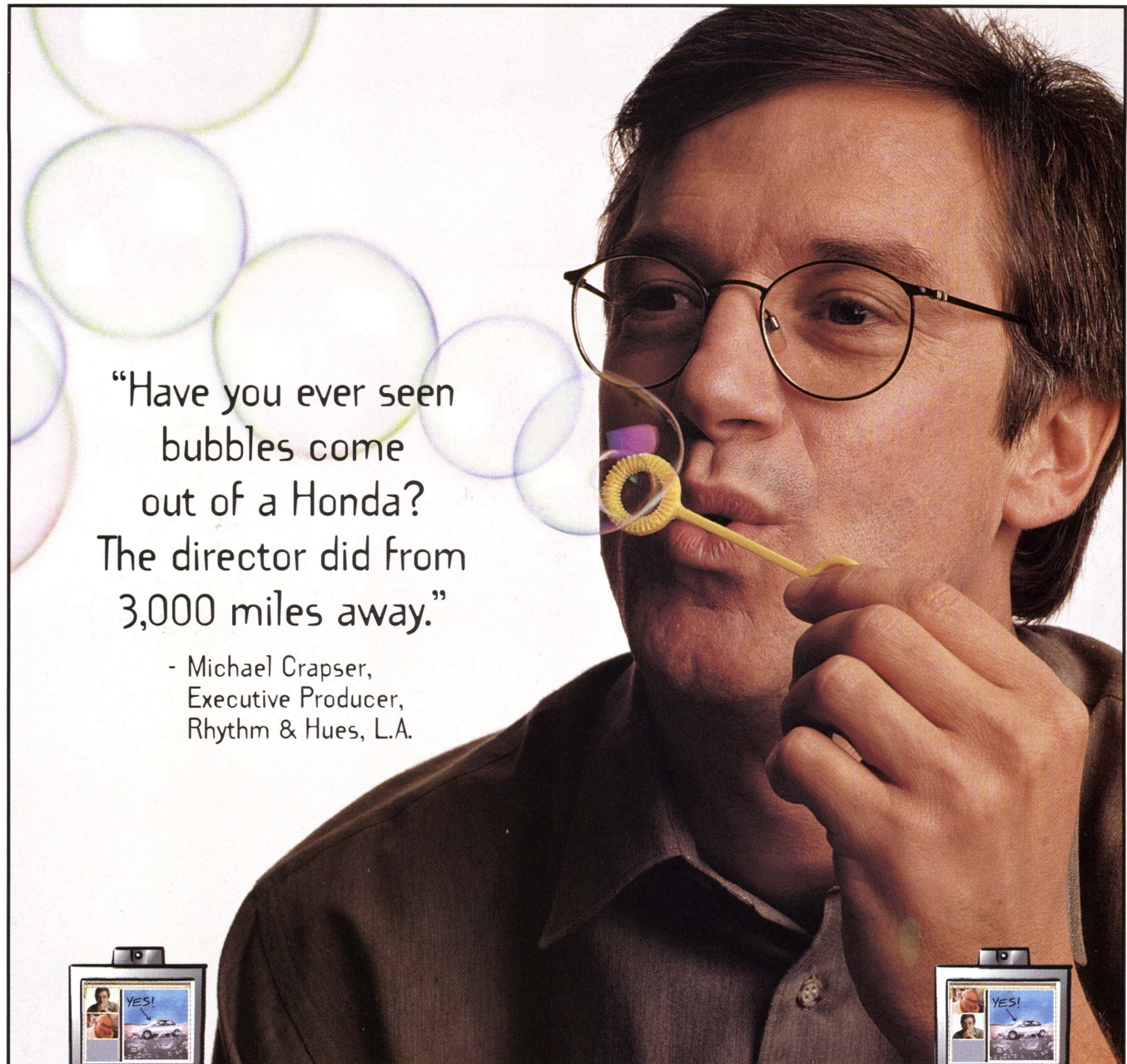
This setup proved particularly beneficial during a climactic scene in which the compound burns to the ground. Although an actual fire was carefully orchestrated, Garside also used Dinos and Maxi-Brutes to simulate firelight effects.



*The Island of Dr. Moreau*  
Director: John Frankenheimer  
Cinematographer: William Fraker, ASC





A man with dark hair and glasses is blowing a bubble with a yellow wand. Inside the bubble is a small image of a car. The background is white with several other colorful bubbles (pink, green, blue) floating around.

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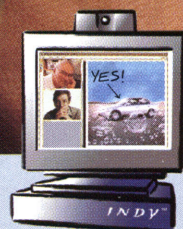
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"We placed the Dinos up in cherry-pickers," he explains. "Each one had 24 bulbs and we put two bulbs through a certain channel on the dimmer board. That way we could bring up each set of bulbs individually. We also had four Maxi-Brutes, for a total of 48 bulbs, which we moved around between shots."

For these scenes, safety was once again the big consideration. The day before the massive, flame-ridden sequence, the electricians pulled all of the main wiring out of the buildings so nothing electrical was left to burn. Other cables were buried for protection against the flames and heat. "All of our electrical circuits are protected by Earth Leakage Protection Systems," says Garside. "It's a special electronic system you put on your distribution system. If water gets into a joint anywhere and there is a chance of electrocution, it trips the whole circuit out."

The compound wasn't the only structure to be blown up; another casualty was a wharf ostensibly used by the inhabitants of the island. The beach site chosen for this sequence was part of an Aboriginal reserve, and the filmmakers had to obtain tribal permission to shoot there. It was granted, with the provision that the filmmakers stay on the sand and not venture onto the neighboring vegetation.

Equipment for each production department was ferried to the beach on landing barges, vehicles which have a propeller on the back and big tires underneath in order to traverse the water and then drive up onto the sand to deposit cargo.

Given that Frankenheimer wanted to shoot in both directions on the beach — and wasn't allowed to erect equipment on the Aboriginal land — an area had to be secured for the lights and the 150kva generator. "The only place we could hide them was in the boat shed built for the scene," says Garside. "Otherwise, we put them on a landing craft and took them back out to sea." That wasn't a viable option, however, since the shed and jetty were to be destroyed, so the generator was put on board a "duck" (an amphibious vehicle similar to American World

War II troop carriers) and driven on the beach around the shot.

"We put Dinos on the barge and used it as a platform to light from the sea back towards the jetty," explains Garside. "For the moonlight scenes, we created a surreal, deep blue by adding blues to the lamps. We put a half CTB on the HMIs, to give us one-and-a-half blue. And on the Dinos I used dichroics with three-quarter blue on them. We did that for all of the moonlight scenes because we wanted to create [the sense] that this was a sort of magical island."

Despite constant battering from the rain, sand, heat and humidity, all of the equipment held up phenomenally well. But Fraker reserves special praise for the Panavision Gold camera, "an old workhouse that never breaks down," he says fondly. "I like equipment that is designed for one specific job and will do that one thing. I don't want a piece of equipment that will solve every problem, because you're solving the problem at about 70 or 80 percent of what it's supposed to do. One item can't do everything."

While much of *Moreau* was shot with a Steadicam, Fraker admits that he isn't generally a fan of the mobile unit "because you're not seeing the same thing as the operator." But Fraker had no worries with operator Brad Shield in the harness. "I trusted him implicitly. He put on the screen exactly what I wanted."

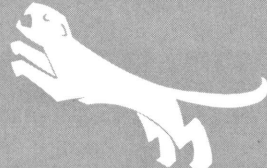
The jungle scenes, however, were almost impossible to shoot with the Steadicam. "You can't move two feet without having to stop to push something aside," remarks Fraker. "There is even a thorn bush called a 'Wait-a-While' because it hooks the poor walker, who has to stop for a few moments to disengage himself."

Asked about lenses, Fraker notes that he prefers Primos because he finds their T-stop markings to be accurate. "When they say T2, they are actually T2.3," he says. "In the old days when they said T2.3, they were actually T2.8."

The only problem the director of photography encountered was with film stock, not because the Kodak 5298 and 5293 Fraker

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selected gave him any trouble, but because he couldn't find enough of it. "When you leave the United States you don't get the services," he laughs. "There just wasn't that much 5298 in Australia."

The cameraman rated the 5298 at 320 ASA instead of 500 since Australian labs require a heavier negative than those in the States. "If you are shooting 500 ASA, you would use 10 footcandles at F2. If you rate it at 320, 10 footcandles would give you F1.4. So you need to use more light to get the exposure you want. That's just the way they process film over there."

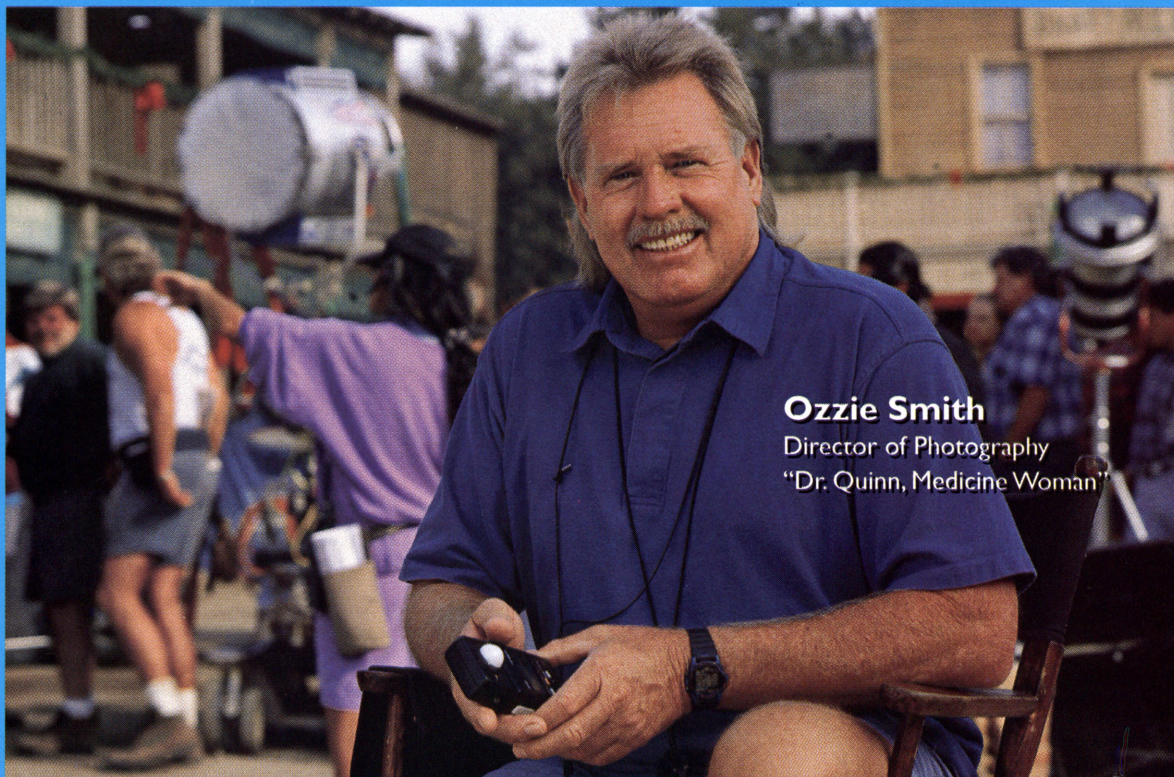
Frankenheimer's version of *The Island of Dr. Moreau* is the first to take full advantage of modern special effects and animatronic masks, courtesy of Academy Award-winning artist Stan Winston and his colleagues. Many of the fur-covered creatures were dark in color, with deep-set eyes that had to be heavily rimmed with light so as to extract them from the forest backgrounds. "We'd give everybody nice little kicks," says Garside. "We'd get nice little pieces of light along the edges of their faces, and into their eyes."

The ceaseless heat and the rain made the actors playing the creatures decidedly uncomfortable; the temperature inside their fur suits rose as high as 110°F. But despite this oppressive hotness and humidity, torrential rains, mud, the nearly three weeks at sea, and the high-profile actors, the real terrors for Fraker and his crew seemed to be the live animals used to further dress Moreau's compound. Garside's chief annoyance was the black panther housed inside the laboratory set — the feline had a habit of marking its territory by spraying anyone who walked by. Fraker's pet peeve was the bugs, spiders and strange animals roaming the jungle. "You'd see these strange little eyes at night," the cameraman recalls, emitting a sort of half-laugh, half-shudder.

As for working with Frankenheimer, a director Fraker had long admired, the cinematographer concludes, "John is a terrific director, creative and tough. He demands a little bit more from you, and that's the challenge." ♦



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Superstar San Francisco Giants slugger Bobby Rayburn (Wesley Snipes) has a frigid bat-to-blade standoff with his socially isolated stalker, knife salesman Gil Renard (Robert De Niro). Shooting the scene at Anaheim Stadium, Wolski shut down the massive structure's stadium lighting to avoid using equally massive amounts of fill.



Photos by Linda R. Chen, courtesy of Columbia/TriStar motion Picture Companies.

## Bedlam on the Basepaths

Cinematographer Dariusz Wolski, ASC lends atmosphere to *The Fan's* mix of sports and psychosis.

by Chris Pizzello

The opportunity to photograph Robert De Niro, one of the undisputed icons of cinematic intensity, in a tale of psychotic obsession is a filmic "feather in the cap" that only a few select cinematographers can include on their resume.

For Polish-born cinematographer Dariusz Wolski, ASC, the chance arose on only his fourth feature film, *The Fan*. This picture marks his second straight collaboration with director Tony Scott, following the duo's work on the acclaimed 1995 submarine thriller *Crimson Tide*, for which Wolski received an ASC Award nomination [see AC June '96]. As Wolski tells it, the opportunity to once again explore the visual possibilities within

Scott's in-your-face directorial style was just as exciting a prospect as collaborating with *The Fan's* notoriously perfectionist star.

"Tony and his brother Ridley practically invented the commercial look of the Eighties," he submits. "As a member of the younger generation of filmmakers in the Nineties, you basically realize that you've been ripping them off! [Seven director] David Fincher and I must have seen Ridley's film *Blade Runner* [shot by Jordan Cronenweth, ASC] about 1,500 times. And when you look at Tony's film *The Hunger* [shot by Stephen Goldblatt, ASC], you say, 'That is an amazing-looking film.' For those of us who were just put-

ting our hands on the camera [during that era], those guys were our visual idols."

*The Fan* follows the seemingly disparate but gradually converging lives of Bobby Rayburn (Wesley Snipes), a multimillionaire slugger for the San Francisco Giants, and Gil Renard (De Niro), a lonely, blue-collar knife salesman who is one of Rayburn's most ardent admirers. As a native of Poland who had never seen a baseball game during his childhood, Wolski faced a particularly daunting task in trying to put a fresh visual spin on one of America's most venerable sports.

"I was scared at first," Wolski admits. "Everybody is used



to what baseball looks like on television. The sport isn't that appealing cinematically, yet you want to give it some style. *The Natural* is a beautiful film, but the period of that film helped give it a lot of character. Here, we were doing contemporary baseball. You have to be careful about how you shoot it because there are a lot of baseball experts in America!"

The big-time sports milieu of *The Fan* is a long way from Wolski's own upbringing in an artistic household in Poland. During his youth, Wolski was especially inspired by his older sister, who is now a painter in New York City. "Being the younger brother, I was trying to come up with something a little more exciting but equally creative," he explains. "So I started watching movies."

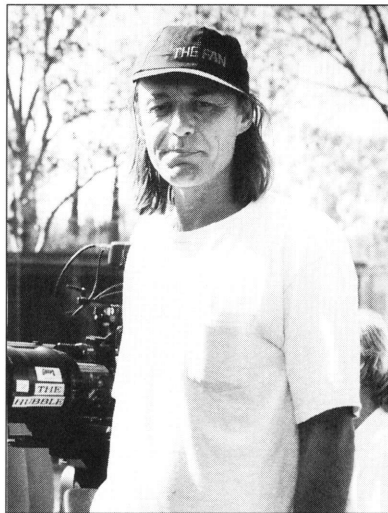
Inspired by the great films of such European directors as Federico Fellini, Ingmar Bergman and Andrei Tarkovsky, Wolski decided to attend the Polish National Film School. He found the school's hands-on approach — and its limited resources — to be invaluable steps in his visual education. "While I was still in school, I shot a lot of films with student directors, handling lots of different situations," he recalls. "Also, because of the lack of technology, we would usually shoot in black-and-white, which became very advantageous later on since it's the purest way of lighting. Film was also carefully rationed there, so you learned to take care of it."

In 1979, the 23-year-old Wolski took a hard look at the somewhat limited options his homeland offered to a young cinematographer-in-training, and subsequently headed straight for the media-saturated United States. "[America] is where everything in film is happening, both good and bad," he comments with a wry

laugh. "Just as every painter went to Paris at the turn of the century, every cinematographer today should come out here."

Upon settling in New York City and spending a few years "just basically trying to stay

alive," Wolski got his first break when the British Broadcasting Corporation hired him as a camera assistant for documentaries. He then slowly started working as a camera assistant on low-budget movies in New York and Los Angeles, eventually earning the chance to serve as director of photography on *Heart*, a 1987 independent film about boxing.



His confidence bolstered, Wolski then moved to Los Angeles, where he found himself in the center of the burgeoning music video industry. The cinematographer soon became allied with talented and ambitious young mu-

sic video directors such as David Fincher, Russell Mulcahy, Alex Proyas and Julien Temple, all of whom exploited the no-rules aesthetic of the new medium. After enduring the blistering production pace of music videos for several years, Wolski jumped into the more lucrative commercial field, working often with his old video collaborator, Proyas, and Jake Scott, the son of Ridley. While in the middle of a Mercedes car campaign, Wolski was introduced to British director Peter Medak, who was impressed enough

by the cinematographer's commercial reel to offer him his first major film assignment on the offbeat, noirish 1994 thriller *Romeo Is Bleeding*.

Wolski was then hired again by Proyas to shoot a film they'd long discussed called *The Crow*, based on James O'Barr's futuristic comic book series. After that long, arduous and tragedy-plagued production (star Brandon Lee was shot and killed in a much-publicized accident on the set), Wolski was hired by Tony Scott to shoot *Crimson Tide*.

"By that time, I'd done a lot of commercials, and Tony was aware of my work," Wolski recalls. "He used to put me on hold for commercials he was working on, but finally he called up and said he wanted to talk to me about this movie. It was quite amazing to work with him. Tony has a very strong visual style — he loves long lenses and tight close-ups on faces. He's very hands-on with a tremendous amount of energy. And despite the fact that he's done a lot of movies and is successful, he's still very hard on himself."

Wolski's work on *Crimson Tide*, highlighted by a striking and varied use of saturated color in the confines of a submarine set, garnered an invitation by Scott to work with him again on *The Fan*.

**Left: The 100'-tall rain-rig setup for the finale at Anaheim Stadium. Gaffer Claudio Miranda gelled eight big 18Ks to match the stadium's metal-halide fixtures. Wolski (bottom, left), not only had to light the structure and infield, but 2,500 extras in the stands.**



**Right: Bathed in a harsh top-light, Renard acts out his most psychotic on-field fantasies with two miniature plastic players. Wolski found De Niro to be exceptionally cooperative while he deployed lights to emphasize the character's menace. Bottom right: Rayburn pleads his case in a blue-tinted washroom. Wolski rarely corrected existing sources, preferring to allow metal-halide, fluorescent and sodium-vapor fixtures to add their distinct colors to an environment.**

In a reversal of the usual schedule for a feature film, Scott, Wolski and three camera operators set off for three weeks last summer before actual production to shoot second-unit work in several major-league baseball stadiums, including Dodger Stadium in Los Angeles, Candlestick Park in San Francisco, Three Rivers Stadium in Pittsburgh and Coors Field in Denver. This footage would be used for crowd scenes and montage material, and also served as the filmmakers' own "batting practice" for the substantial amount of rehearsed baseball action in the film.

Recalls Wolski. "During every game, we had a helicopter flying overhead to shoot a big, wide shot over the stadium, and also two or three cameras in the photographers' pits [next to the dugouts on the first-base and third-base sides]. Sometimes we would be allowed to shoot from behind the catcher, where there might be a protective booth with a radar to check the speed of the pitcher. That was the best angle, so we would say to the radar operator, 'Can you move just a little to the right...?'"

"Every game was a major struggle with the authorities," Wolski adds. "We would always try to sneak the camera into certain vantage points, while trying not to [anger stadium authorities]. And of course, the light always seemed to be in the wrong place at the stadiums."

Since *The Fan* was to be shot in the anamorphic format, Wolski and his operators had to exercise particular care when focusing their Panavision E-series lenses. "We used a brand new 3:1 Panavision zoom, which was anamorphosized, for the first time, for us. So it became a 260 to 840mm lens with a 4.5 stop," Wolski relates. "In the beginning, I thought [the lens] was technically impossible and it wouldn't be sharp.

But Ralf and Dan Sasaki from Panavision [Tarzana] made it work and we ended up using it throughout the entire shoot; it was very, very sharp all the way through."

Interestingly, the crew was shooting just after the resolution of last summer's baseball strike, and the resultant public disgust complicated the filmmakers' initial desire to shoot raucous, capacity stadium crowds. "We were aiming to shoot big, big crowd scenes," Wolski recalls. "But often



the stands were empty, because people were still angry about the strike! Also, if the game was boring, the audience would leave early. But then we decided that we could use those shots for moments in the movie when Wesley's character is in a slump or his team is losing."

While the wide-open location filming of *The Fan* couldn't have been a more different experience for Wolski than the cloistered stage-work of *Crimson Tide*, the cinematographer still employed some of the visual ideas introduced on the previous film. "You always carry over certain things from your past films," he asserts. "We used a lot of top light on *Crimson Tide*, and

we tried to take that even further for this film. Top light is very dramatic and also just a beautiful, classic look. The best top-lit movie ever made is *The Godfather*, but nobody has the guts to shoot a film that way anymore! Even if cinematographers do it nowadays, they still put *something* in the actor's eyes.

"The great thing about photographing De Niro," adds Wolski, "is that he's not like many stars, who are so worried about the way they look. I can understand and respect [such concerns], but sometimes it gets in the way of telling the story. You can diminish the whole style and look of the film, as well as the character of the performance. Many actors forget that it's the performance that makes the film, not how they look, but that was never a problem with De Niro."

Wolski also again experimented with color, using the varying color temperatures of different light sources for effect rather than following the standard practice of correcting them. "Sometimes when you look at location scouting photographs, you see long exposures of nighttime streets," he describes. "You'll see colors like orange-green and blue-green. It looks so beautiful. I looked at some of these pictures and I said to myself, 'Why not just shoot the film like that?'"

Wolski went one step further in *The Fan* by not only letting the background light sources retain their natural color, but also frequently using gels on foreground lights to "paint" an entire scene. "I let all of the fluorescent lights in the movie go green," he notes. "We also used a lot of metal-halide lights, which are primarily blue with a little green, for night scenes at the stadium, along with orange sodium-vapor lights. I kept the same overall color temperature in scenes to create an eerie look, and also because that's what we see in reality. If you're on a street, you see streetlights, not big blue moonlight."

On *Crimson Tide*, Wolski had frequently underexposed his film stocks to give the colors a rich



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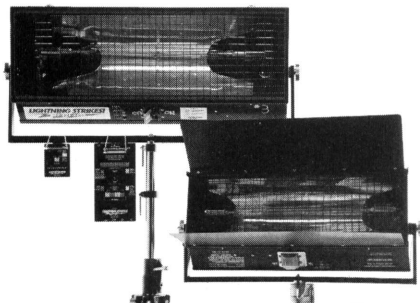
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saturation, but he stayed away from this strategy on *The Fan*, which called for a rougher, edgier look. "In *Crimson Tide*, the primary colors were red and blue," he explains. "Here, we weren't dealing with such vivid colors. When we'd use fluorescents or metal-halides as a top light, I'd let things really burn out so that the highlight would have this eerie white quality, while the shadow would get the color."

For scenes in the hallways of Anaheim Stadium, Wolski and his longtime gaffer, Claudio Miranda, used orange-tinted sodium-vapor lights as a visual motif. "It was really hard to go through our gels and match them with high-pressure sodium-vapor lights," says Miranda. "You could get your color meter to say that it matched, but it never really felt or looked the same. Dariusz has always liked letting natural lamps take over, so we actually carried high-pressure sodium-vapor lights with us, rigged them so they would be able to pan, and then used them like normal film lights. In one big hallway scene, we rigged 22 sodium-vapor units at about 6' 6" high, since Dariusz likes to light close to the edges of the frame."

Inevitably, in any film set within the Romanesque spectacle of big-time professional sports, at least one scene will involve thousands of extras and nearly as many lighting considerations. *The Fan* is no exception, saving its climax for a rain-soaked night baseball game at Anaheim Stadium. The filmmakers spent a total of seven weeks shooting inside the stadium.

Wolski originally intended to use just the existing banks of metal-halide fixtures already towering over the stadium, but found it impossible to match the sweeping light on the field with more exacting lighting considerations, such as players' faces. "You're dealing with a monster structure," he relates. "The ideal light is backlight, so the original plan was to turn off the front lights of the stadium and just use the edges. They're so bright and so high that your rim around the field is beautiful, but once you start shooting people — especially Wesley wearing a hat — they basi-

cally don't exist! So we would have to pound in a lot of light to balance the scene. Then if you add rain to the scene, the rain becomes so bright that you end up shooting at an 8 or 11 stop at night. So eventually, we slowly began turning the big stadium lights off one by one. We nearly ended up not using them at all."

Miranda found that situations in which the blue-green metal-halide lights were used didn't pose too much of a problem in terms of color consistency. "They already seemed to be fairly film-corrected," he notes. "We used them mostly to fill in parts of the field. We turned off all of the front stadium lights, but if we were shooting into the field, we'd use some of the back ones. We would then gel our big 18Ks slightly green to match the stadium lights."

In addition to using three 100-foot-high rain towers just outside the frame for the climactic scene, Wolski ended up employing almost every vantage point available inside Anaheim's three-tiered structure to rig a variety of lights. "The best thing to use on the field was a normal 96-foot-long cherry-picker which we could articulate, send out over the audience and then bring back," he describes. "We had two 18K HMIs each on four cherry-pickers [eight 18Ks in all], which we tried to bring as close as possible to the edges of the frame."

Because the rain being pumped onto the field caused a mobility problem for the cherry-pickers, Wolski also banked lights on the different levels of the stadium for flexibility. "To provide accent lighting, we had six 6K Pars running way up from both the second and third levels," he says. "On the ground, we had additional 12Ks and 2Ks, for which we built 20' x 10' frames because I wanted a slightly softer quality for faces. Plus we had all sorts of small HMI Pars right from the audience, because we had 2,500 extras to light! Whenever we wanted to turn around, we would have to take all of these lights down and shoot the scene another way. It was the biggest rigging job ever for Claudio."

Adds Miranda with a laugh, "We had so many guys op-



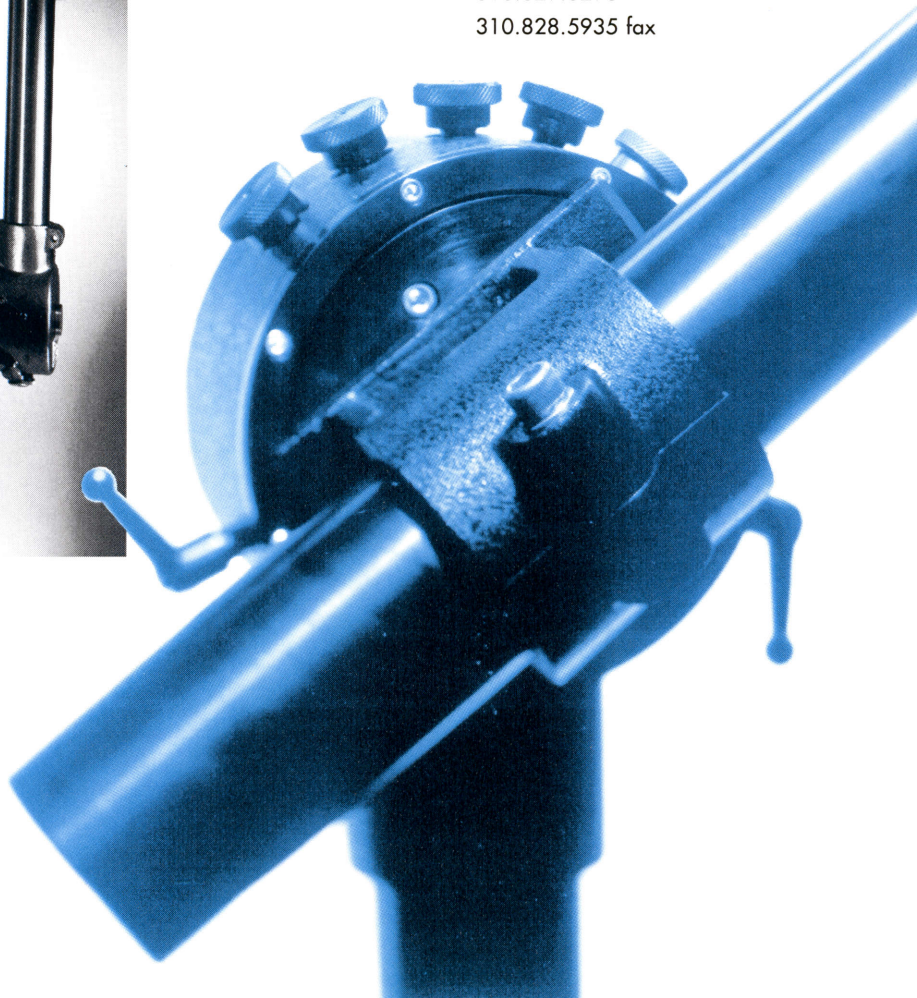
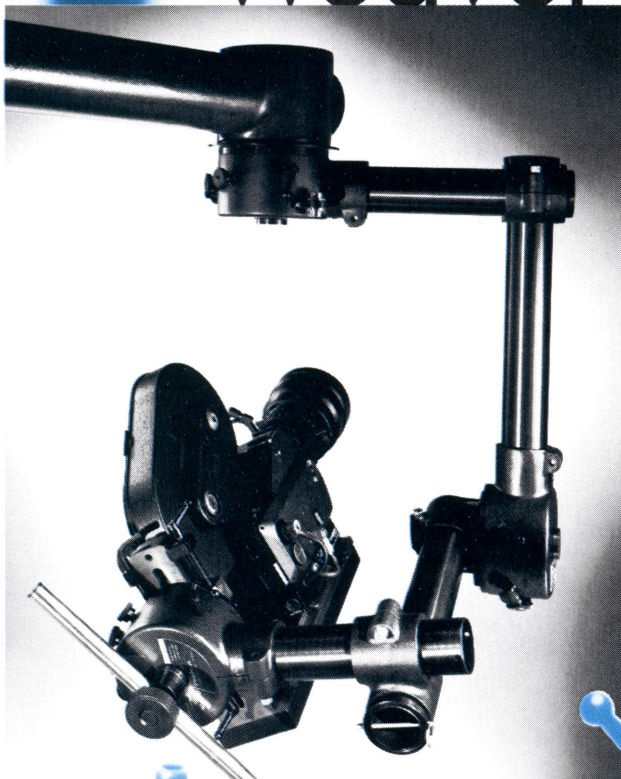
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erating lights that I had the best boy give me a name chart, which I put on the back of my light meter. I just couldn't remember them all!"

The filmmakers were the beneficiaries of some rare location-shooting luck during one potentially problematic scene in which a pre-game tribute is staged at a stadium for a recently deceased teammate of Rayburn's. During filming, a JumboTron monitor high above center field flashed images of the "player" (Benicio Del Toro) while 2,000 extras in the bleachers on either side of the giant screen held candles. Four 22.5K Decca tungsten lights in Condors were used to augment the flicker of the candles.

"I've never seen this in my life, but we did the scene in one take without even a rehearsal," Wolski marvels. "The stadium lights were turned off, and suddenly there was a transition to these big tungsten lights on flicker generators, which were giving off an ambient gold glow to augment the candle lights coming up. All you could see were silhouettes of the players [against the glow of] the candlelight, in addition to the tribute on the JumboTron. We made the whole transition without even a rehearsal. We did a second take just in case, but the first take was very, very close."

In a wry homage to Martin Scorsese's *Raging Bull*, which also featured De Niro as an obsessive anti-hero, Scott employed the "aperture speed control" method for both action scenes and at certain points in the film when he wanted to take the viewer into the characters' mercurial mindsets. The filmmakers' only adjustment was making sure that the camera was running flicker-free. "When Wesley is going through his emotional traumas on the field, we sometimes start the scene in normal speed and then go to slow motion," Wolski says. "There's also a similar scene in which De Niro is walking down a street. It's a very dramatic device, because at the start of the shot the viewer is in reality, but then within the take you're taken into the character's state of mind."

Wolski used 5298 for night scenes and 5293 for day shots, since

much of *The Fan* was shot during the winter, when light would diminish earlier in the afternoon. Mindful that the story takes place in the avarice-soaked era of contemporary baseball, Scott and Wolski were not seeking a romanticized view of the game, so they lent *The Fan* a less inviting overall look. "We wanted the film to look rougher, with more of an edge," Wolski explains. "I think contemporary photography is going away from pretty pictures. Something that is dark is *really* dark, and something that is bright is very bright — the idea is to stretch photography, make it more extreme."

After conquering the awesome logistical headaches of lighting on the scale of an entire baseball stadium, Wolski was more than happy to return to the more manageable complexities of a simple human face. "I had a great time just lighting De Niro inside his apartment," the cinematographer relates. "His character is a lonely man, so his apartment was in a very small, middle-of-the-road Los Angeles location. Those scenes had to be a bit spooky and moody. I like photographing very dark. Tony likes a very glossy look, so we were always debating about how dark we should go. We basically tried to light De Niro with a single source, just simple top light so that you could see some shadow under the eyes and nose. When an actor is giving a great performance, you just become very humble and do very simple, helpful things."

The contrast in *The Fan* between sprawling, complicated action scenes and these quieter scenes of character development reminded Wolski of one of his philosophies about cinematography, and art in general. "I remember when I got to the stage in commercials when I finally had enough time and enough money," he says. "I would shoot something really pretty, but it was like, 'So what?' If you have enough time, enough money, the right equipment and the right filter, it still doesn't necessarily make for a better picture. You can do an average painting with 40 colors, or you can just take a pencil and make a great drawing." ♦



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"VIETNAM IS IN A STATE OF transition. Nothing is stable, and I created a film that was very chaotic to take that state of affairs into account," says director Tran Ahn-Hung of his sophomore feature *Cyclo*, an examination of a young man's descent into the Vietnamese underworld. "I personally don't understand Vietnam, so I can't explain it to others. But what I can do is reproduce my state of my mind when once again faced with Vietnam. That's why *Cyclo* is disturbing and hard to grasp."

Given the 34-year-old Tran's hybrid upbringing, the director's confusion about his native land isn't all that surprising. He emigrated with his family to France in 1975, where he received all of his formal schooling, including training in cinematography at the École Louis Lumière in Paris. Tran did not return to Vietnam until 1991, when he was preparing for his directorial debut, *The Scent of Green Papaya*. Shot entirely in a Parisian studio, *Papaya* — a period piece set in Saigon of the Fifties and Sixties — went on to

# Vicious Cycle

Director Tran Ahn-Hung and cinematographer Benoît Delhomme, AFC traverse the frantic streets of Vietnam's Ho Chi Minh City in *Cyclo*.

by Andrew O. Thompson

(French translation by Marianne Exbrayat)

earn the Camera D'Or at the 1993 Cannes Film Festival, a César Award for Best First Film, a Best Cinematography Award at the Chalon Festival, an Academy Award nomination in the Best Foreign Film category, and special honors at CameraImage '94 in Poland.

Unlike its predecessor, *Cyclo*, a \$6 million French-Viet-

namese production, was filmed on location in Ho Chi Minh City (formerly Saigon). The film's cinematographer, Benoît Delhomme, AFC, had also shot *Green Papaya*. But Delhomme's previous experience with Tran by no means prepared him for the demands of this production, which the director says shares influences as diverse as Vittorio De Sica's *The*

Right: The contemplative *cyclo* (*Le Van Loc*) is enmeshed in an unending maze of traffic. "*Cyclo*" is a Vietnamese term for the drivers of the three-wheeled pedal taxi cabs that are the major form of public transportation in modern Ho Chi Minh City. As the actor speaks only Vietnamese, he and cameraman Benoît Delhomme communicated through looks, signs and smiles.



Photos courtesy of Cinepix Films and Lazennec Productions, by Laurence Tremolet.



*Bicycle Thief*, Robert Bresson's *Pickpocket*, Martin Scorsese's *Taxi Driver*, and Japanese director Yanag Imachi's *Himatsuri*.

*Cyclo* takes its title from the occupation of its central character, an 18-year-old driver of a three-wheeled pedal taxi (Le Van Loc) who ekes out a meager existence amid the teeming thoroughfares of Ho Chi Min City. The cyclo is forever haunted by the counsel given to him by his late father, a cyclo killed in a traffic accident a year earlier. When a rival street-gang rips off the cyclo's vehicle, he's forced by his tough-as-nails employer, the Boss Lady (Nguyen Nhu Quynh), to join a band of cutthroat hoods led by the Poet (Tony Leung-Chiu Wai of *Chungking Express*), a laconic, white-clad romantic with a penchant for the perverse. Unbeknownst to the erstwhile cyclo, his virginal older sister (Tran Nu Yên Khê, the director's wife) is also in the Poet's sphere of influence, but as a sex toy. The cyclo, the sister and the poet soon find themselves spiraling into a world of degradation.

Like Tran, Delhomme also studied at the École Louis Lumière, graduating in 1982. He then toiled as a camera assistant on feature films, an experience he found "frustrating" given his yearning to be more closely involved with the creative process. For a time, he considered leaving the film business to become a still photographer. Delhomme's enthusiasm was renewed in 1986 when he landed a job assisting French cinematographer Bruno Nuytten, AFC (*Brubaker*) on *Jean*



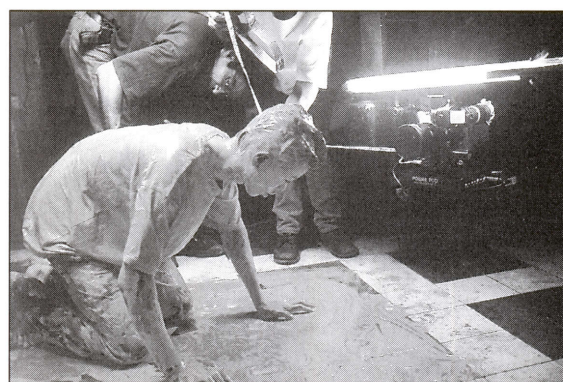
Left: Having smeared himself in blue paint, the cyclo, under the influence of chemical hallucinogens, takes aim with a pistol during a strange sequence illuminated by a flickering fluorescent. Below: Setting up the aforementioned shot. Note the camera's Maxi Jib and power-pod attachment. Bottom left:

*de Florette* and its sequel, *Manon of the Spring*. He subsequently served as a director of photography on some 20 short films. Delhomme became a full-fledged feature film cinematographer in 1991 with the dark comedy *Far from Brazil*.

Delhomme's other feature credits also include *Grande Petite*, *Comment Font Les Gens?*, *Chacun Cherch Son Chat* and *Un Air de Famille*. Through producer Christophe Rossignon, for whom he had shot a short film, he was hired as the director of photography on *Scent of Green Papaya*.

In his initial meeting with Tran, Delhomme was slightly taken aback at the manner in which the director approached the cinematic image. "Hung spoke of light in term of brilliance and dullness, freshness and transparency," recalls the 35-year-old cinematographer. "He described physical sensations that he wanted to feel

through the texture of each image. Hung wanted the light to be 'religious' so that the faces looked like icons, and even simple things such as sandals or fabric seemed holy. I had never shot a film that could even come close to



Delhomme shooting an exterior tracking shot of the cyclo and his passenger from the production's makeshift tracking vehicle: a Toyota pickup truck. The camera is somewhat hidden as director Hung didn't want the crew's presence to disrupt the natural energy of the city.



such a demanding use of light. In fact, no other movie resembled what Hung wanted to do, but he was looking for a cinematographer who would be willing to follow him in the elaboration of his own style."

On *Green Papaya*, logistical problems had forced the filmmakers to abandon plans to shoot on location in Vietnam as their production schedule had not taken into account the extended rainy season; sets had to be built, as existing architecture from the French colonial period had since been renovated for greater occupancy. Also, all of the technical equipment and its operators had to be imported, because Vietnam has no indigenous film production infrastructure. But the crew also found that the country they encountered, one shaped by a 19-year-long U.S. trade embargo, differed greatly from that of Tran's youth.

Recalls Delhomme, "After a few weeks of prep in Viet-



**Delhomme (at the camera) and focus puller Philippe Roussilhe (in background) line up a shot of the sister (Tran Nu Yên Khê) being menaced by an overzealous john. The overhead lighting was bounced off of foamcore to give the sister an aura that lends her the resonance of an icon.**

nam [on *Papaya*], it became obvious that the stylization offered by Hung did not fit the country's natural context. The image of Vietnam from his childhood more resembled the paintings of Henri Matisse than what we could see with our own eyes. We had to re-create everything! That was how I ended up spending about 10 weeks in a Parisian studio trying to manage the biggest team of technicians that I had ever dealt with in my life."

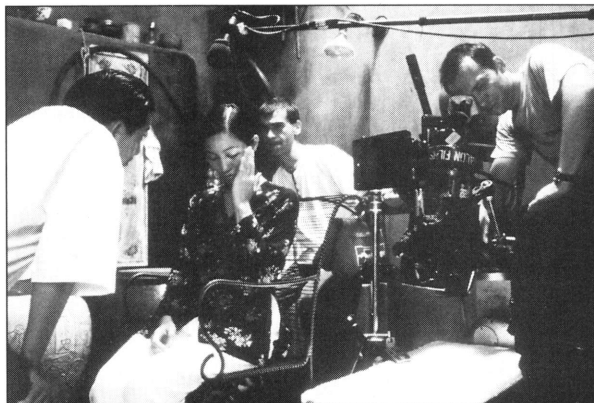
This earlier experience of re-creating Vietnam inside the studio proved to be an interesting experiment, however, Tran was adamant that *Cyclo* should be filmed on location amidst the hustle and bustle of Ho Chi Minh City. Says the director, "I needed the ambiance of the city, its combination of great vitality and enormous fatigue."

During *Cyclo*'s initial preproduction meeting in January of 1994, Tran informed Delhomme that he wanted the photographic philosophy of the film to "break with the sacrosanct idea of lighting continuity. If you take five images from any classic film, those five images have the same style — I didn't want that. I don't know why people do that; it means that they're expressing the same feeling all the way through the film. For me, the feeling from one sequence to the next is different, therefore the light has to be different. I created an expression which Benoît found shocking; I said to him, 'We're going to create a garbage can of light.'"

During preproduction, Delhomme prepared for this strategy by pasting images from fashion magazines, as well as color copies of paintings, in a large notebook. After assembling these images, he mixed and matched the various styles and

colors from one page to the next to acclimate himself to the idea of a cinematic collage.

Assessing Tran's concept, Delhomme says, "Once I digested this provocative approach, I found it to be both liberating



and stimulating. I don't believe that I went so far as to create a 'garbage can,' but I was more audacious than usual. I brought in a little more of my own universe than I had on *Green Papaya*. It was quite incredible to approach each sequence with a fresh perspective, freed from the constraints of continuity."

This aesthetic also found its way into the film's camera movement and framing styles, elements which were often used to reflect the mindset of the major characters. Tran tends to frame his actors from above to reflect his philosophical view of life. He explains, "I have virtually no shots taken from below to show people silhouetted against the sky. I anchor them on the ground to give them a very strong relationship to a society with a down-to-earth reality."

Delhomme comments, "When the cyclo is beaten up, dragged around and manipulated, there are violent, choppy handheld shots. Happy moments for the more serene characters are followed by static and soft tracking shots. Even in her job as a prostitute, the sister is filmed like an untouchable icon. There are also very fluid handheld shots as the poet turns around in circles before committing suicide; the style of the camera's motion says a lot about the

character's internal struggle."

Delhomme always operates his own camera. "Beyond the intellectual pleasure of controlling the image, I really need the physical contact with the camera," he explains. He shot *Cyclo* in the 1.66 format, primarily with a Panavision Platinum. A Pan-Arri III was used for high-speed and dutched shots.

To lighten his load for the handheld shots, the cinematographer outfitted the Platinum with a Panavision wireless focus and aperture-control system. The system facilitated in-shot exposure adjustments during interior scenes illuminated by the natural light coming through windows or other openings. For some shots, Delhomme had to plan out four to five aperture changes in advance to correspond with an actor's movement around the room. The cinematographer credits his first assistant, Philippe Roussilhe, and second assistant, Xavier Tauveron, for their deft handling of this task.

Describing his souped-up Panavision, Delhomme says, "I felt as if I had a Steadicam on my shoulder. The simple fact that I didn't have to feel the hand of an assistant — even one with great dexterity on the follow-focus — lent much more flexibility to my movement. Being able to remotely control the iris helped me shoot a lot of takes that would have been very hard to light otherwise."

"As Hung wanted a look in-between that of handheld and tracking shots — similar to the effect of the camera floating through the air — my excellent grip, Wan Fai-Law, proposed that we use a Pee-Wee dolly, and a Maxi Jib equipped with a power pod, for small sets and exteriors. That was exactly what we were looking for, and Wan operated the jib arm with incredible flexibility and surgical precision."

In terms of lenses, the director vied for the same Zeiss Superspeeds employed on *Green Papaya*, but Delhomme convinced Tran to switch to Primos, which the cinematographer had recently utilized on a pair of French fea-



tures. While shooting *Cyclo*, the filmmakers relied primarily on the 35 and 50mm primes, along with occasional use of a 100mm 1:2.5 macro lens that could focus down to 18".

Offering his opinion of the Primo lenses, Delhomme says, "I am still impressed by the way they can stand up in an image's very exposed zones without the blacks turning gray. I used them between T1.9 and T11 without ever adding the slightest diffusion or contrast effects. Too much crispness can be too severe for Caucasian facial features, but it really embellishes Asian faces."

As for his choice of film stocks, Delhomme was of the mind that "a picture about contemporary Vietnam needed a more 'modern' stock," particularly one which offered high contrast and deep color saturation. The filmmakers had used Kodak's 5247 on *Green Papaya*, but for *Cyclo* they chose 5245 for all of the daytime scenes, and 5298 for night scenes and those set during dusk and dawn.

Much to his apprehension, Delhomme never had the immediate opportunity to view the result of his work during *Cyclo*'s 14-week shoot, which began in September of 1994. The only "rushes" to be seen were those from the Hi-8 playback of the black-and-white video assist. This difficult working situation was due the Vietnamese government's insistence that a censor be attached to the production for the entire shoot. The appointed official was responsible for inspecting what had been filmed and then approving the footage for extradition. Rather than screen the dailies in Ho Chi Minh City, where they could be subjected to further inspections, the filmmakers opted to ship the unprocessed negatives to Paris, sight unseen.

Delhomme communicated via fax and phone with color timers Didier DeKeyser and David Vincent of LTC Labs. The negatives were sent to the lab twice a week to determine if the footage measured up to his speci-

fications. (Producer Rossignon and editors Nicole Dedieu and Claude Ronzeau also had access to these dailies.) LTC's only frame of reference for the cameraman's intentions were four days' worth of tests with the principal actors, executed in Ho Chi Minh City a month prior to the actual shoot.

Says Delhomme, "I had asked Didier DeKeyser to show me several prints of my tests. I wanted to see different ranges of blue-green night ambiances, warm sunny daytime exteriors, and colder, half-lit day interiors. When I returned to Vietnam, I

*Raise the Red Lantern*]. In Vietnam, it's the greenish-aquarian colors that are dominant, and I used that green a lot."

Delhomme did get one opportunity, however, to include a scene coated in crimson. He notes, "There is only one red monochrome shot in *Cyclo*: After the poet has delivered his sister to a man with handcuffs, he's walking in the street and suddenly senses that he's made an irreparable mistake. That scene needed a color that 'shouts' in the middle of this aquamarine-colored night. The red acts like



had truly discovered the color palette for *Cyclo*."

Tran credits his own "painter's eye" for this array of calculated colors, which the director insists hold no symbolic significance and are arranged "to create the greatest visual impact so that *Cyclo* becomes unforgettable." However, he did have to pull in the reins on some of the designs put forth by his crew.

Tran elaborates, "Both my art director [Benoît Barouh] and cinematographer wanted certain sets to be red. But I said, 'Out of the question.' Red is an Asian color, but it's primarily a Chinese one — for example, you'll see it in the films of Zhang Yimou [*Red Sorghum*,

an alarm Klaxon, [signaling a moment] when everything shifts in the poet's mind."

The aquamarine tint arises from the fact that many of Ho Chi Minh City's makeshift streetlight sources are cold, harsh fluorescents, primarily used because they are cost- and energy-efficient. The director found the preponderance of this lighting to be a blessing, as "cold light corresponds better to the modern world. You do see a lot of blue neon in terms of modern life, but it's too pretty. What I like to do is create a bit of contrast with yellow incandescent light; that shocking contrast makes the image both dirty and alive." →

*The cyclo on the balcony of his grandmother's house, framed by a frenetic expanse of the vehicle-laden streets of Ho Chi Minh City.*



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Concurs Delhomme, "The fluorescent light is quite simply what illuminates things best with the smallest power consumption. The only type of fluorescents available in Vietnam are Russian-made, and they're rated at 9000°K with over 15 points of green! People there will often light their apartments with a single fixture hanging from the ceiling. This aquatic, blue-green atmosphere is very impressive, and we had to exploit it.

"I had the production buy 100 of these Ho Chi Minh lights, and I decided to light most nighttime interiors with them. I discovered, however, that one can create very sophisticated lights with three tiny little tubes. A bare fluorescent tube used by itself very close to a face has an unbelievable rendering: it's a very precise source and very enveloping as well. From time to time, I put a simple tungsten bulb in a corner of a set that was otherwise lit with fluorescents, creating a warm spot in this blue-green [atmosphere]."

The cold, bluish tinge surfaces during the cyclo's descent into the daily degradations of the city's illicit narcotics market. Prior to taking up his new occupation as a drug smuggler, the cyclo finds himself in Slaughterhouse 43, where he witnesses pigs being gutted mercilessly so that their carcasses may be stuffed with packages of heroin.

Remarks Delhomme, "This is a sequence that was shot under documentary film conditions. I believe Hung used it to truly show what an execution scene entails, to illustrate that real blood is nothing like red paint. I shot this scene with the existing fluorescent lighting — I did not want to give a fictional edge to the crudeness of what was happening by re-lighting it.

"While processing this sequence, I pushed the 5298 stock one stop. During the color timing, I briefly considered printing it without any dominating color in order to make the tiled floor burn in very white, and to ensure that the blood would come out extremely red, but this

truth was too unbearable. The dominant [fluorescent] blue re-fictionalized the sequence."

As a further step in his initiation, the cyclo is coerced into committing murder. In addition to a pistol, he's given some pills to amplify his bloodlust, but the cyclo overdoses on his chemical courage and in his dazed and confused state lathers himself in blue paint. During this rather bizarre scene, the cyclo collides with an overhead fluorescent fixture, which then flickers in a strobe-like fashion.

Says Delhomme, "The sequence is lit entirely with Ho Chi Minh fluorescents. As I wanted the rendering and rhythm of the flashing of the light to be completely random, I simply asked my gaffer, Jean-Noel Viry, to install manual switches on three or four double-tube fluorescents. I installed them all around the cyclo to randomly vary the direction of lighting.

"You can see the light bars of the fluorescents reflected in the blue paint on his face. During the two days we worked on that scene, all of the electricians on the set took turns activating the various manual switches, and they all had terrible thumb cramps the day after! This sequence was exhausting because of the stroboscopic effect in the viewfinder. It was shot partly handheld and partly with the Maxi Jib, entirely on 5298 at T2."

Delhomme's lighting package was combination of gear from Arriflex and the Italian company DeSisti. In addition to an array of HMI Pars — which he favors because of their interchangeable system of lenses — his daylight package consisted of four 4' Kino Flo banks. For night scenes, he augmented these with tungsten fixtures and 100 or so "Ho Chi Minh City fluorescents," as well as 40 flood lamps fitted with 2K bulbs. The cameraman also had 40 specially made lightboxes (ranging from 40 to 500W) equipped with Frost 216 diffusion material.

Says Delhomme, "I had those lightboxes manufactured out of lightweight aluminum in



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Ho Chi Minh City. I wanted to compete with the Chinese lanterns that everybody is using nowadays. These lightboxes are very easy to equip with gels, which is really not the case for Chinese lanterns, and they allowed me to create my monochromatic scenes. They are a little bit more directional, and one can easily block out one side with black wrap. Occasionally, I would put several of them in a row to make a large lightbank."

Early in the production, Delhomme was prohibited from placing fixtures on city streets and in interiors open to the streets. The producers feared that



**A setup for the rooftop scene in which the poet (Tony Leung) fatally slashes the john who stole the sister's virginity. The camera is attached to the Pee-Wee dolly with a Maxi Jib. Delhomme says that the ballet-like nature of the violence was Hung's interpretation of the Jean-Luc Godard quote "We must film murder scenes like love scenes."**

this would attract undue attention from the local populace, which was unaccustomed to filmmaking activity. The cinematographer was forced to impose specific shooting hours on the schedule, based on the position of the sun.

Delhomme also relied heavily on natural light to prove to Tran that he was capable of such cinematography. Toward this end, a scene in which the sister awakens the poet at dawn — to look out the balcony window and see a helicopter falling off a truck — was shot over two consecutive mornings during magic hour. Eventually, word of the *Cyclo* shoot got around town, and the inhabitants became used to the film crew — so much so that Delhomme could later bring in lighting trucks armed with 12Ks to illuminate his interiors.

But more often than not, says the cinematographer, "We decided to shoot the daytime scenes as discreetly as possible in

order to take advantage of the city's incredible vitality. Hung wanted to show the cyclo in the middle of the permanent flood of traffic. To achieve this we had to completely forget about lighting. In fact, we used a disguised Toyota pickup truck as a tracking car!"

One rather impressive use of natural lighting occurs in a shot of the poet and the sister, during which a poem is read via voice-over. With the progression of the verses, the two slowly become brighter, glowing whiter and whiter until they burn out of the frame.

Says Delhomme, "This is truly one of those images we call 'icons' in our cinematographic language. The poet and sister were backlit. I placed several sheets of foamcore in a half-circle around them, as close as possible to their faces so that they looked haloed in the reflected light. I then cut a hole through the middle of the foamcore so that I could aim the 35mm Primo lens through it. I started the take while very thin clouds were partially blocking the sun. When the clouds cleared away, we had a sublime overexposure that gave us a very different effect than if we had simply opened the iris. It's with such natural lighting effects that the richness of the 5245 stock comes through."

For night scenes, however, relying on existing luminance was impossible. Due to the city's lack of street lighting, Delhomme had to light up parts of Ho Chi Minh City like a proverbial Christmas tree. Another scene requiring such rigging came during a climatic sequence when the Boss Lady's son is killed by an oncoming fire truck.

"Hung wanted a lot of wide-angle shots, which created a lot of problems for the placement of the lights. I had to plan the lighting very precisely a month in advance in order to get authorization and obtain access to the different roofs and balconies that we had scouted. I had spotlights and fluorescents installed over hundreds of yards of street. It could have turned

into a nightmare for my gaffer, but, thank God, the production always let us have a pre-lighting team during the day. The last months of the shoot entirely focused on the night scenes, and it was an ordeal to control everything."

Above all else, the production was able to overcome one of the major technical problems that had hindered the shooting of *Green Papaya* in Vietnam: the importation of 12 tons' worth of filmmaking equipment. Only the power generator they used was already in the country, courtesy of a recently departed Canadian production. Most of the equipment and lighting gear originated from Hong Kong's Salon Films. Alga Samuelson of Paris provided the second camera unit and some Panavision accessories.

*Cyclo's* crew came from backgrounds as diverse as those of the equipment that they used. A number of the Vietnamese technicians had had prior training on Jean-Jacques Annaud's *The Lover* and Régis Wargnier's *Indochine*, two recent French productions that had been shot in Vietnam. Delhomme's gaffer and assistant oversaw a team of electricians from the Philippines and Vietnam. The stunt people, grips and the special effects workers came from Hong Kong. This was all part of Tran's grand plan to provide for the establishment of a true Vietnamese film industry.

Since shooting *Cyclo*, Delhomme has spent time studying the paintings of Caravaggio for his next project, director Agnès Merlet's *Artemisia*, a biography of the 17th-century painter Artemisia Gentileschi. This film is currently shooting in Rome on location and at the famed Cinecittà Studios. The cinematographer will continue his collaboration with Tran Ahn-Hung on the third film in the director's Vietnamese triptych, *Rice Wine and Dried Shrimp*, which is tentatively set to begin production sometime late next year. ♦





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Flashback: It's the waning days of April, 1996, and Dante Spinotti, AIC is in Los Angeles preparing to shoot *L.A. Confidential*. Written by James Ellroy, the story is set in Los Angeles, 1952, when the city was beginning to define itself as a cultural and financial hub.

Spinotti, whose credits range from *Beaches* to *The Last of the Mohicans* and *Heat*, decides that the best way he can serve the script is to record sharp and grain-free images that mimic reality. Costumes and props establish the period instead of visual metaphors such as smoke and diffusion.

The Italian cinematographer and director Curtis Hanson decide to shoot in Super 35 wide-screen (2.35:1 aspect ratio) format because it replicates the scope of the city's urban sprawl and matches their visual concept for the story. It is a bold decision. The script calls for many low-key night scenes, and Super 35 requires an optical step in postproduction which amplifies grain.

Still, the duo's timing couldn't have been better. On April 24, Kodak introduced the Vision 500T and 320T films. Kodak says

# Blue-Chip Stocks

Top cinematographers assess Kodak's new Vision emulsions, which offer an expanded palette of possibilities.

by Bob Fisher

that the two emulsions are the fore-runners of a new platform based on a number of breakthroughs in silver-halide technology. The new stocks are capable of recording sharper and purer images without compromising film speed or other imaging characteristics offered by the earlier EXR 5298 and 5287 emulsions.

However, every new stock is open to interpretation by individual cinematographers. "I decided to shoot a test at night outside a fast-food restaurant," Spinotti recalls. "The windows [looking in from the outside] were hot. Compared to the rest of the shot, they were three to four stops

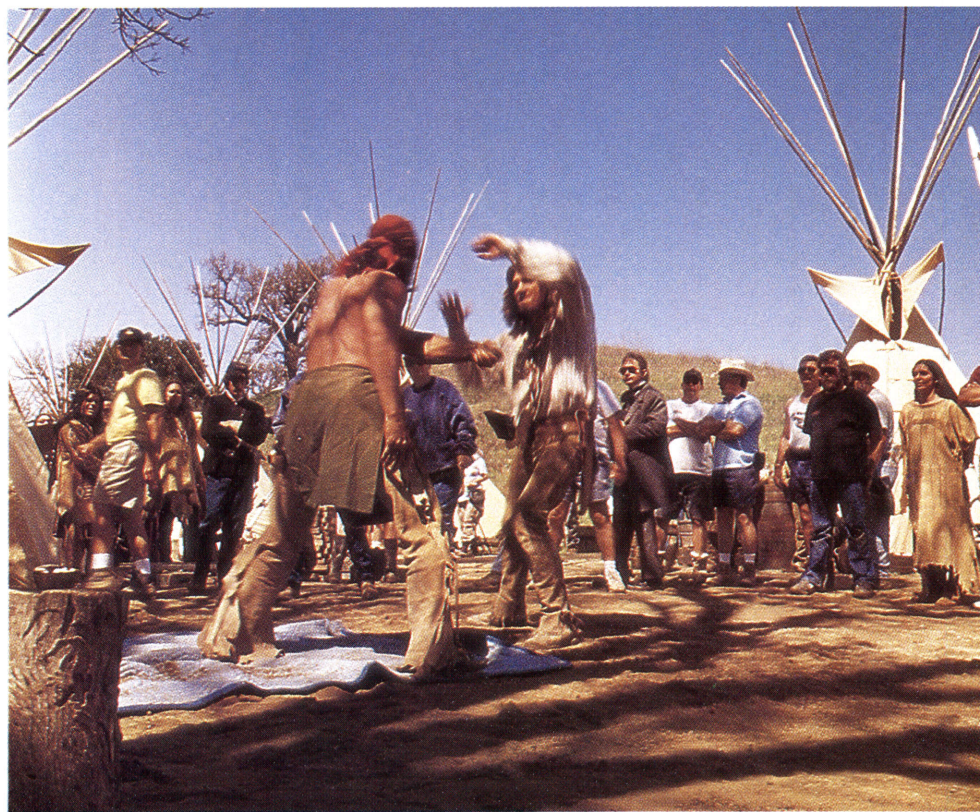
overexposed. That was typical of the night exteriors we would be shooting during production. As soon as I saw the dailies, I was convinced [of the new stocks' abilities]. The film held details in the brightest highlights and darkest shadows, and the images were sharper than I would have expected from the 5298. Best of all, I didn't see any buildup of grain. The image quality was comparable to that produced by the 5293 film."

Spinotti collaborated with production designer Jeannine Oppewall and costumer Ruth Myers on the use of textures and colors. Mainly, he shot on some 70 to 100 practical locations around the city with some standing sets in a downtown building."

Spinotti decided to record most interiors and all night exteriors on the new 500T film. The problem was that there wasn't a sufficient supply of the film in the pipeline to launch a major feature with a May 6 start date. However, with assistance from Kodak's Don Henderson, and Tonino Carletti of Kodak Italy, Spinotti obtained 50,000 feet of the stock that had been earmarked for shooting tests in Italy. That supply was enough to get him started.

While prepping for *L.A. Confidential*, Spinotti studied stills taken during that period by Robert Frank (*The Americans*). In essence, he previsualized the film as a series of still images recorded with a mobile movie camera — a strategy that helped motivate the decision to shoot in wide-film format. Spinotti says that the composition possibilities of the 2.35:1 frame matched the photographic images he visualized. He also anticipated aggressive camera movement and

Ozzie Smith utilized Vision 320T for this knife-fighting scene in *Dr. Quinn, Medicine Woman*.



Film clips courtesy of Eastman Kodak Company.



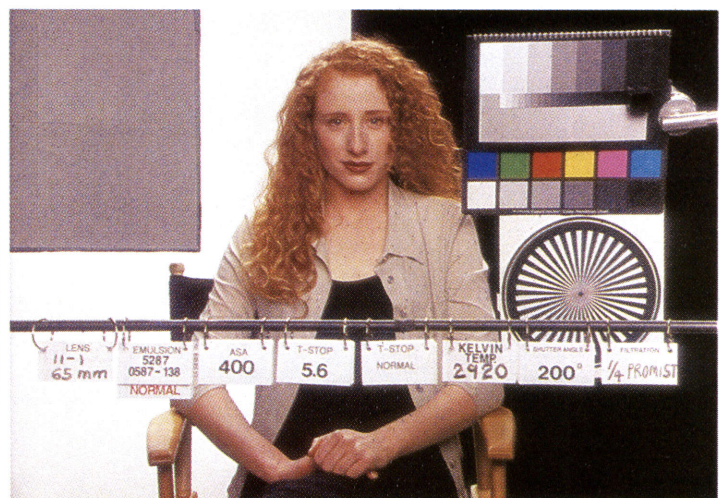
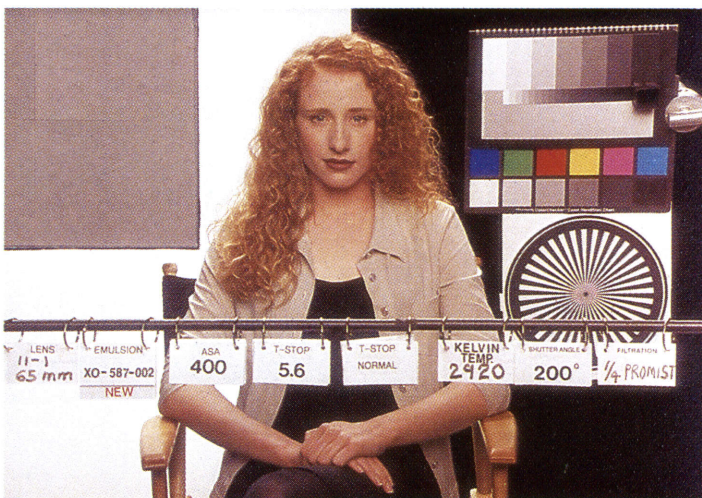
gressive camera movement and action scenes.

The cinematographer felt that the wider format would provide more "elasticity" for composing moving images. Super 35 was chosen over the straight anamorphic format because the decision had to be made so close to the beginning of production; Spinotti says that it would have been difficult to find anamorphic lenses. He also had more flexibility shooting in Super 35, because it enabled him to work at a faster stop (T2.8 to T3.5) without compromising depth of field or the smooth texture that he envisioned. The new Vision 500T film allowed him to probe deeper into the background in

John Sawyer, senior research associate for Kodak Professional Motion Imaging, says that the Vision films are products of a new paradigm in film design and manufacturing. "Previously, when we were designing a faster film, we needed to incorporate larger silver-halide crystals," he explains. "That made the film more sensitive to light [and faster], but it also added grain and reduced apparent sharpness. [The 500T and 320T] retain all of the imaging characteristics that cinematographers liked in 5298 and 5287, but there is less apparent grain and they are sharper. We didn't arbitrarily select those imaging characteristics. We conducted focus groups around the world,

ery color negative film consists of three blue, red and green layers — fast, medium and slow. As light passes through each layer, it activates the silver-halide crystals it strikes and they begin to form latent images. The "fastest" silver-halide crystals now contain a "new addendum which manages the solid-state properties of the emulsion," he says. The result is a gain in efficiency in the formation of latent images. "This enables us to use smaller silver-halide crystals without sacrificing sensitivity to light," he adds. "We can get the same film speed with less grain."

Another important factor in the stocks' design was the collaboration between Kodak's devel-



more natural-looking light.

"That gave me the freedom to move the cameras [aggressively] and to compose images without the burden of knowing that I would have to go to T5.6 to make a zoom move at some point in the sequence," he says. "I felt more comfortable taking chances and not worrying about overexposure. That affected the pace of production. You never know with a new stock, but there weren't any unexpected problems. The color timer, John Bickford [of Technicolor Labs], is doing his usual fine job. My guess is that when we are timing, we'll find that the look will be a little too cold and contrasty if we print on the edge of the blues and greens. I expect that we will add a point or two of yellow to soften the images and give us the look we envisioned."

and once we knew what most cinematographers wanted, we asked scores of them to shoot and evaluate tests. That enabled us to fine-tune these films before they were introduced."

Sawyer notes that there is no dominating factor in the design of the new films. He says that they incorporate many small improvements in design, rather than "one amazing discovery."

There have been some improvements in the patented, tabular-shaped (T-grain) silver-halide crystals. Sawyer calls the new stocks "smart T-grain emulsions," but adds that other ingredients have also been improved. The biggest advance, he says, is in the synergy built into the design of the nine layers of emulsion which make up each of the new films.

Sawyer explains that ev-

opmental units. "Our design and manufacturing teams have been working together for years," Sawyer says. "As a result, there is a familiarity which leads to a better understanding of what we need to do. If you make incremental improvements in one layer, you need to understand the effects on other layers. We made the biggest improvements in the red layers, or bottom layers, of the two new films. One factor determining sharpness is the dispersion of light passing through film. Light starts out as a tightly focused beam of photons. The beam spreads, or disperses, as it passes through the film. By proportionately improving the red layers more than the blue and green layers, the sharpness of the overall image becomes more balanced and natural-looking."

Sawyer also notes that

**Allen Daviau, ASC's test comparing the new Vision 320T (left) with 5287 (above).**



A scene from *NYPD Blue* (featuring co-stars Dennis Franz and Jimmy Smits) captured by Brian Reynolds with the new Vision 500T.



these are the first films specifically designed to take maximum advantage of Kodak's new film manufacturing plant (Building 38) in Rochester, New York. The facility houses a highly automated filmmaking system based on advanced robotics and computerized process control technology. Computers are used for precise adding and mixing of ingredients, while scanners, computers, thousands of sensors and an integrated information system ensure uniform coating.

Those capabilities provide more flexibility in the design of films, and more invariability in manufacturing. Prior to introducing the two Vision films, Kodak asked a number of cinematographers to shoot tests and report on results. Some of the tests were compiled into a demonstration film produced by Dean Cundey, ASC.

The cinematographer observed, "The improvements in grain and sharpness are apparent; I think the Vision films are [also] slightly less contrasty, but I don't think you can measure that because it depends on the scene and how you expose the film. In the test that Allen Daviau [ASC] shot, the model's face looks slightly rounder on the Vision films. That's because you don't see some of the shadows

which shape her face when the image is slightly more contrasty. But that doesn't mean you are always going to get round faces. Once you understand how these films react to light and shadows, you can create any look you want."

Cundey points out that any evaluation of a new film stock is necessarily subjective, because a look that pleases him might not satisfy another cinematographer, or vice versa. He maintains that cinematographers must ask themselves some important questions, such as, "What best serves the story and audience?" or "Do you trade a little grain for sharper focus because the script calls for endless depth of field?"

Cundey notes that if there is "grain crawling on the surface of the film," viewers might only notice it at a subliminal level — however, that still might be sufficient to alter how they perceive and react to the story. The cinematographer could choose to exploit the grain to amplify a mood, or decide that it would be better to use more light or sharper lenses and a slower film.

"Any time you alter technology in a fundamental way, you change the rules, and people are going to experiment with new techniques," the cinematographer

adds. "It's always interesting to bend and break the rules, because that's what enables you to be creative. [New stocks] give everyone more choices. You can stimulate creativity by telling a director, actor or writer that they can do something today that they couldn't do yesterday."

Canadian cinematographer Stephen Reizes tested the Vision 500T film in the 16mm format for a scene in the Disney television series *Ready or Not*. The setting was a nightclub with a lot of smoke and backlight. He reports that the images were "sharp and clear" with none of the "grit, grain and noise that can creep into a low-light situation. The latitude was incredible, which is essential for high-contrast lighting. The shadows had exceptional detail, giving a beautiful texture and resonance to the scene."

Randy Greer, Jr. used the Vision 500T film in Baltimore to shoot scenes for a commercial with the Kenworthy snorkel camera system. In the spot, an actor talked on the phone while the cinematographer created a moody atmosphere with low-key lighting. Greer says he needed the phone to "pop off the screen." Normally, he would have used a slower film with a tighter grain structure, and added more light. That tactic wasn't necessary with the new film, which he says looks "three times" sharper [than 5298]. Greer expects the 500-speed film to be useful for shooting products such as ice cream, which melt under hot lights.

Allen Daviau observes, "There is something intriguingly different about this [Vision 500T] film. It is substantially finer-grained [than 5298], but there is also something else that wasn't there before. It has a certain pearlescent quality in its transitions from highlights to mid-tones, [which makes that transition] seems smoother. To use a phrase from the video world, the 'noise level' is lower. I see the same thing in the 320T film. This is very difficult to quantify for someone who isn't a cinematographer. You just realize that there is a certain quality in a particular film that makes an edge glow or a shadow



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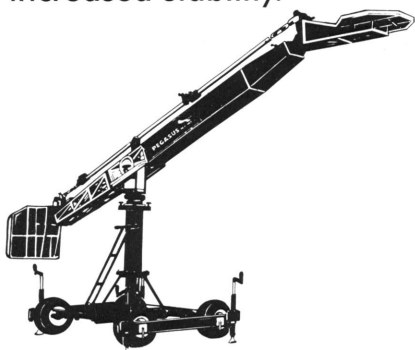
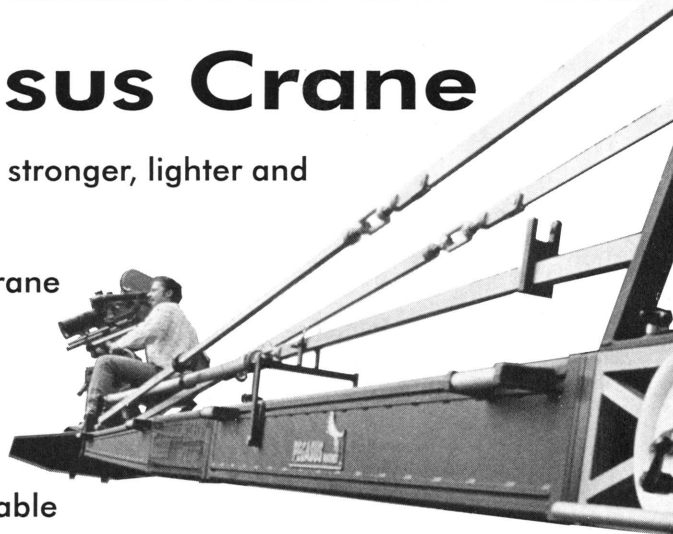
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**Dean Cundey, ASC offers a familiar landmark seen anew with the Vision 320T stock. The low-contrast film offers great detail in dark foliage areas.**

fall more darkly."

Vilmos Zsigmond, ASC says that the grain in the 500T stock is hardly perceptible even when the film is underexposed by two stops. He believes that this characteristic will be particularly useful for realistic night scenes, when a cinematographer wants to make the most of available light. He also expects the 320T film to be useful in high-contrast scenes, when it isn't convenient or possible to use fill light in shadow areas.

Jerzy Zielinski, whose credits include *Powder*, *Swing Kids*, *Paradise*, *The January Man*, and the Irish film *Cal*, was also among the first cinematographers to use the 500T film on a narrative film — *Washington Square*, which is set in the 1850s. Based on a Henry James novel, the picture is set in Manhattan, although it was mainly shot on location in Baltimore.

Interior lighting was mainly motivated by gas and kerosene lamps and candles, plus occasional sunlight pouring through windows. During the prep stage, Zielinski was looking for a fast film which intercut well with the EXR 5293 that he used to shoot exteriors.

"I'm a great fan of 5298," he says, "but it's just a little too grainy for the look I wanted. I saw the Vision demonstration in May, and decided to test it. It responds very much like the 5298 film, but I think it's a better match for intercutting with 5293."

Though *Washington Square* is a period film, Zielinski decided not to use smoke and diffusion on the lenses. The visual style he pro-

posed to director Agnieszka Holland called for crisp images and realistic lighting based on sources that were typical in New York City during the 1850s. A number of pivotal scenes were solely motivated by candlelight. His visual reference was John Alcott, BSC's rendition of *Barry Lyndon* for director Stanley Kubrick.

For the dimmest candlelit scenes, DuArt Labs in New York "pushed" an extra third to a half a stop out of the fast film. Zielinski describes it as "a very gentle push which added a richness to the texture. I don't see difference in the grain. It's very subtle; I just used it for selected scenes or shots, where the level of light was very low, to match the look of existing sources of light. We were being true to the sources."

*Washington Square* was filmed in 1.85:1 aspect ratio with an ensemble cast that included Jennifer Jason Leigh, Albert Finney, Maggie Smith and Ben Chaplin. Zielinski calls it a love story which explores the intimacy of relationships, especially that of a father and daughter.

"There are a lot of hidden meanings buried in the dialogue, concealed behind words," Zielinski explains. "One of the most important things for me was finding ways to express those themes and emotions non-verbally. Basically, that involved lighting to enhance the story and characters by creating an appropriate atmosphere or environment. You use technique to interject a non-verbal language into the film with a combination of light, shadows, the rhythm of camera movement and composition."

"When we had intimate scenes involving two people, light was usually motivated by candles on a table," he says. "That meant that we had warm light from a low angle. In these situations, I was shooting with Primo lenses and the new 500T film. The lenses were very well-matched and color-balanced. The main advantage that the new film offered in that situation was texture. The Vision film is clearer, with a smoother texture [than 5298], but it still penetrates the shadow areas."

Steven Poster, ASC was

also among the first cinematographers to use one the Vision 320T in a production situation. Poster, whose feature credits include *Someone to Watch Over Me*, *Testament*, *The Boy Who Could Fly* and *The Cemetery Club*, used the stock on a Cheer commercial handled by the Leo Burnett Agency.

"This campaign has been running for quite a while," says Poster. "The director, Leroy Koetz, has done a lot of them, but it was the first time we had worked together. This spot was larger in scope than what they had usually done. We recreated a one-ring circus, complete with sawdust and sand on the ground, a clown in the center ring and an audience. Some of it was planned for digital postproduction. For example, we only had 15 to 20 extras. We shot takes with them seated in different parts of the stands, and then layered them into the scene digitally."

Prior to this, Poster had used 5287 to shoot as many as 20 commercials. "I'm intrigued with the ability it provides for manipulating contrast, especially when you are shooting for telecine," he says. "On this spot, we were creating a hot foreground with a big blue spotlight. The background wall had circus decorations, and the crowd was deeper in the background. The audience is supposed to see and feel their presence without recognizing anyone. There was a delicate balance between light falling on the center of the ring and on the crowd, which was a mere 15 to 20 feet away."

During the 30-second spot, a clown squirts seltzer water on someone offscreen. In return, a pie is thrown in his face. He squirts again, and then gets two more pies thrown in his face. The payoff is that after 30 performances, because he washes his costume in Cheer, the outfit's colors are as bright as they were when it was brand-new. There is also a visual comparison to another costume which had been washed 30 times with another brand. This comparison is made in side-by-side style, with the clown holding both garments.

"The differences [in the garments' colors] were real, but they were very subtle," says Poster.



"I used the Vision 320T film because it 'sees' images pretty much the way the human eye does. It is clearer and sharper [than 5287], and that allows the audience to see the differences in the texture of the fabrics, as well as in the richness of the colors."

During shots in the circus ring, the clown wore a purple and white outfit, and was lit with a blue spotlight placed overhead at about a three-quarter angle. Poster smoked in the atmosphere to bring out the beam. He also created a large, contained source of frontal softlight using four 10Ks low and to the left of the camera. These sources were double-diffused with light grid cloth and opal and spread some 10 to 20 feet from the subject. The camera itself played the role of spectator from the visual perspective of the crowd.

"We were shooting with relatively low keylight to create contrast between the foreground and the background," he explains. "I wanted the spot to feel theatrical, so there was a certain amount of darkness. There was more of a feeling of fantasy than you would normally expect in a detergent commercial."

"We also wanted a particular look, a bit abstract and rich in colors," he says. "But it wasn't like a dream [sequence]. It was important for the spot to feel realistic to the viewer. The bottom line was that the product comparison has to be an accurate depiction of reality. It had to be very clinical in order to accurately depict the differences between the two costumes. As I said, it's a subtle difference, but you can see that one costume is washed-out."

"I had shot a brief test when the Vision 320T film was introduced, but not in this situation, so there was a certain amount of faith involved."

Poster concludes that the ability to record such subtle differences is a true test of any new film. "The new Vision stock treats colors in a particularly interesting way," he testifies. "It can accurately discern very subtle differences." ♦

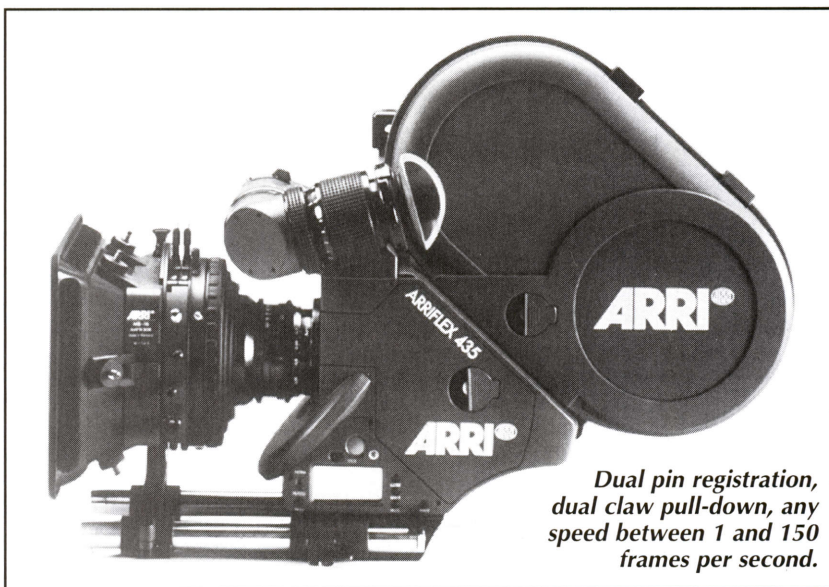


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When it comes to big gambles, you can forget about Las Vegas: Los Angeles is the home of the ultimate game of chance — a geological crapshoot in which the dice bounce off the Santa Monica Mountains and the Hollywood Freeway serves as the Don't Pass line. Yes, we're talking about the ever-present threat of the ultimate disaster: a cataclysmic earthquake, a.k.a. The Big One.

Although Los Angeles is nestled near an active fault line that could do with a world-class face lift, it remains an irresistible lure to the world's big dreamers, for whom the risks of relocating are always outweighed by the potential rewards. As Christopher Rand opined in his 1967 book *Los Angeles: The Ultimate City*, "There are other cities on the West Coast, but... none so imbued with the Northern willfulness in battling nature."

Now, some 15 years after his bleak, Manhattan-based actioner *Escape from New York*, director John Carpenter has called our seismic bluff in *Escape from L.A.*, which offers a cocktail party-premise come true: What if Los Angeles were chipped off the edge of the continent and became an island?

"We'd been talking about a sequel since 1985, but never came up with the right story for L.A.," Carpenter admits. The director credits the star of both films and his longtime friend, Kurt Russell (producer and co-writer on the new *Escape*, along with writer/producer Debra Hill), for reviving the dormant idea and helping to create another adventure for his cinematic alter ego, scruffy anti-hero Snake Plissken. "We thought about what L.A. has been through in the '90s:

earthquakes, mud slides, fires, riots, drive-by shootings. Basically, it's pretty fruitful material. A lot of people living here are in denial. It's such a beautiful place, but we all live on the edge of this incredible earthquake fault and we never leave. From that premise, we worked our way into the story."

Although *Escape from L.A.* is not without its political and satirical sides, Carpenter notes that

tors, prostitutes, atheists — anybody who doesn't fit into this new, moral America."

As it turns out, the President's rebellious daughter (A.J. Langer) has stolen a doomsday device and delivered it to Cuervo Jones (George Corraface), the charismatic leader of a Peruvian gang who is unifying Third World countries for an attack on the U.S. "They want theirs before

## Escape Artists

Anti-hero Snake Plissken returns as director John Carpenter and cinematographer Gary Kibbe shake up Southern California in the apocalyptic *Escape from L.A.*

by Michael X. Ferraro

"the action part is the action part. Like Ulysses, [Snake] has to go through several adventures to get back home again and save his life, and those are the things that compel you through the film."

While writing the post-quake, "nihilistic cowboy noir movie" Carpenter and his co-writers simply surveyed a map of Los Angeles and began to plot Plissken's perils. Says the director, "We just sat down and said, 'Okay, he starts here.' He goes under the 'San Fernando Sea' and through the various areas of Los Angeles. We then decided the kinds of things we wanted him to encounter — earthquakes, fires, etcetera. We then worked them into the story. It was a little bit like pins on a map, if you know what I mean."

The story is set in 2013, years after a massive quake has turned Los Angeles into an island. The rest of the country has become a militant theocracy, and the ocean-encircled City of Angels serves as a deportation center for the "morally guilty," which Carpenter defines as "people like abortion doc-

everything is used up," Carpenter explains. "They want power, and everything else we have here in the United States."

Snake's mission, of course, is to get this doomsday device back and prevent further catastrophe. As the story begins, we learn that Plissken has been gunfighting for profit in New Vegas, Thailand ("Doesn't that sound like a happy place?" Carpenter asks). He is soon enlisted, against his will, to save the world.

Carpenter's task was quite the opposite, as he was forced to trash the place he's called home for the past 28 years. "I love it here," the Kentucky native-turned-Angeleno says with a sheepish grin. "I love the environment, I love the city, I love the architecture. But I wanted to do to L.A. what we did to New York [in the first film], which was to have a great time with it in a cynical, sarcastic way, and point out some of the things that L.A. has become — at least in this dark future of ours. So it's a mixed, love/hate kind of deal."

Carpenter exhibits no

Director of  
photography  
Gary Kibbe.  
*Escape* marks  
his sixth  
film as  
Carpenter's  
cinematographer.



Photo by Peter Sorel





**Left:** *Plissken (Kurt Russell) hunkers down in his mini-sub, ready to take the plunge into the San Fernando Sea and begin his mission. The ill-tempered mercenary's cold-blue illumination was motivated by the sub's computer display monitors. Below: Plissken tangles with bikers on the Hollywood Blvd. set. Kibbe used staggered lighting to give additional depth and distance to production designer*

such ambivalence in his professional relationship with cinematographer Gary Kibbe, who has now worked on eight of the director's films (six as cinematographer). The partnership began in the mid-80s, at Carpenter's behest.

"John has been instrumental in my career from the beginning," says Kibbe, who was working as a camera operator before their paths crossed. After having lit and shot one set for the director's longtime cameraman, Dean Cundey, ASC, on *Big Trouble in Little China* (Cundey had previously photographed Carpenter's *Halloween*, *The Fog*, *Escape From New York* and *The Thing*), Kibbe recalls that he "got a phone call [from a third party] who told me that John wanted to have lunch with me at Tiny Naylor's on Sunset. I went down and he introduced himself and said, 'I'd like you to do my next two pictures — as a cinematographer.' I was floored by all this. He told me what all his needs were from a cameraman, and asked me if I wanted to do it. Naturally, I was more than happy to."

The duo's first two theatrical projects were *Prince of Darkness* and *They Live*, followed by the

Showtime anthology project *Body Bags*, *In the Mouth of Madness* and a remake of *Village of the Damned*.

Prior to his stroke of good fortune, Kibbe was no stranger to movie sets — the Studio City native was a regular studio baby. "My interest in camerawork started when I was 9 years old, at Hal Roach Studios," Kibbe recalls. "My dad was involved in special photographic effects for years at Republic Pictures, RKO, and then wound up at Hal Roach. He used to take me to the set. I think the day that opened my eyes to the film world, other than what I did with my box camera [an old-fashioned Brownie that he carried religiously], was the day he put me on the back of the camera at *The Gale Storm Show* — a TV series in the '50s. As soon as I grabbed the wheels of the camera, it just set off a spark. Of course," he chuckles, "it was also nice to look at a pretty face. That had an influence, too."

At 18, Kibbe began an invaluable 11-year employment at Warner Bros. that allowed him to cut his teeth and learn from the masters of the cinematographic craft. After stints in the mailroom, accounting and casting depart-



ments, Kibbe made the transition to the camera department, where his heart had always been. "But back then," he says, "you really had to be the son of a cameraman to get work." Starting out as a film-loader, he began the slow climb up the industry ladder, spending 12 years as an operator. "I worked with a lot of great cameramen and directors," he says, ticking off a "dream team" list of mentors that includes such ASC luminaries as Cundey, Sven Nykvist, Laszlo Kovacs, William Fraker, Owen Roizman, and Andrew Laszlo.

Kibbe proudly recalls that his first job came under the guidance of two-time Academy Award winner Burnett Guffy, ASC on *Suppose They Gave a War*

**Lawrence Paull's vision of an apocalyptic Los Angeles.**





**Plissken and U.S. Police Force Commander Malloy (Stacey Keach) ponder the world's fate amid the flames of a downed chopper. Fire practicals proved to be Kibbe's chief method of motivating his warm-toned nighttime lighting.**

and *Nobody Came?* (1970).

All of this education paid off when Carpenter came calling. "Gary's been around a long time, he's a terrific operator, and I felt he deserved the chance," says Carpenter. "He has an enormous ability inside of him that you can't really quantify. He can really light scenes. The old cliché is, 'like a painter.' That Gary truly is. There are a number of really brilliant cameramen out there, and I've worked with a few of them — including Dean Cundey, Bill Fraker, and Gary — who have a vision and a sense of how light falls on a performer and objects. And as a director, that's what I need: a *cinematographer*, if you know what I'm saying. My contribution to the look of a movie is the lenses, the camera position, the movement — I can do all of that. But the lighting, the cinematography of the movie, is extremely important, and it has to be done with both professionalism and an artist's touch. And that's what I get [with Gary]."

Kibbe's artistic practicality does seem to be a nice fit for Carpenter's often epic projects, which are frequently shot on less-than-epic budgets. At \$50 million, *Escape from L.A.* is the most expensive film of Carpenter's career (more than seven times costlier than *Escape from New York*), but it's a comparative bargain when compared to similarly scaled summer

action films.

According to Kibbe, the key to keeping costs down (especially when shooting in the more light-hungry anamorphic 2:35:1 format, as Carpenter always does) is extensive preproduction prepa-

**"A lot of shows go on without sitting down and asking, 'How much is this [piece of equipment] going to cost us to carry on the whole picture — for 15 to 16 weeks at \$1,000 a week — when we only need to use it two or three times?'"**

**—Gary Kibbe**

ration, and a thorough knowledge of the equipment at hand. The cinematographer marvels at the director's all-around filmmaking attack, noting, "John does the music, the writing, and the directing, which really helps. Perhaps that's why he's able to pull these pictures off in such an incredibly short time. He also gives me a lot of freedom, which is nice.

"Certainly there are times

when you can only do certain things under the given conditions. Time is an issue. How long does it take to get your equipment in and out, and get the work done for the day? Sure, you'd love to have a Musco [for every big exterior], but we don't have the budget for that, so we have to come up with new ideas. Sometimes simplicity is better than [using] a lot of exotic pieces of equipment. Sometimes just one source and a little fill light is all you need.

"Overkill is quite prevalent in the business today," Kibbe continues, "and the budgets show it. A lot of shows go on without sitting down and asking, 'How much is this [piece of equipment] going to cost us to carry on the whole picture — for 15 to 16 weeks at \$1,000 a week — when we only need to use it two or three times?' In my experiences with John, we've never been in a situation where we've had carte blanche. For one reason or another, we've always been restricted, but that's fine."

Even armed with the arsenal a \$50 million budget can provide, and the unlimited potential of a 21st-century Los Angeles tableaux, Carpenter chose not to make a wildly futuristic, effects-laden tale. Set almost exactly as far in the future as its predecessor (*Escape from New York* was released in 1981 and set in 1997; the sequel comes out in '96, and is set in 2013), *Escape from L.A.* is not so much sci-fi as it is an adventure which happens to be set in the next century.

Explains Carpenter, "It's just the day after tomorrow in the future. It's not like *Star Wars* or *Star Trek*, where things are so advanced. We don't have spaceships zooming around in this movie. The world is still very familiar to us, but the action takes place after the earthquake, so what we had to do was create a destroyed Los Angeles."

Prior to the initial location scout, the director figured that Los Angeles would offer plenty of pre-existing urban blight in the city to help guide the production, but he was a bit surprised by the scarcity of such areas. He recalls, "We looked around L.A. at night and discovered that, even in the most devastated areas, it really looks



pretty nice. There are palm trees, and so on. It's really hard to make that look devastated. So for the most part, we figured that we had to create that feeling ourselves."

A driving force in this process was production designer Lawrence Paull (*Blade Runner*), who had previously worked with Carpenter on *Memoirs of an Invisible Man*. Together, they attempted to simultaneously build and crumble down the "instant island" that Los Angeles has become in the film.

"This was much different than *Blade Runner*," says Paull. "The challenge was portraying L.A. as an earthquake-ridden island in a realistic, yet stylized way. I've done a lot of traveling, and when I read the script, I thought of areas in Egypt and China, where you see the lifestyles of people hanging on by their fingernails, literally living on the edge of existence. That was how I wanted to depict this L.A. — people living in hovels, with black markets selling food, weapons, clothing, all at night. John wanted to make it realistic enough to bring home [to audiences] a feeling of 'This could really happen here.'"

Toward that end, research provided recent photos chronicling the aftermath of huge temblors in Kobe, Japan, and India. "Let me tell you, we just don't realize the kind of damage that was done [over there]," Carpenter reports with a low, respectful whistle.

Of course, Angelenos know a thing or two about earthquakes, and Paull drew on a few not-too-distant memories to add to the film's authenticity. "What stuck in my head from the 1994 quake were these huge piles of rubble that sat on the sides of the road, and became almost mountains," Paull recalls. "So we constructed 50 to 60 piles and put them on wood rollers."

Since the cinematic upheaval has rendered L.A. an island, the massive pile-ups on the freeway, long abandoned, have evolved into makeshift shantytowns. Snake has to sneak into the city via submarine ("Jules Verne-style," says Paull) through the "San Fernando Sea." En route, his one-man craft passes many famous

landmarks, including the Hollywood sign and the Capitol Records building, which are now underwater. Much visual trickery went into pulling off this and many others sequences in the film, which employed over 140 CGI shots, as well as extensive greenscreen, miniature, and matte work (see story about the film's effects on page 81).

Having shot before and during Hollywood's special effects revolution, Kibbe is an unabashed proponent of modern CGI wizardry. "I have a great admiration for the people in the opticals and effects [departments]," he says. "They make a lot of movies what they are. The basic bottom line doesn't change, it's just the applications, and the tools facilitate that."

In addition to the film's CGI work, Kibbe says, "We have some miniature shots — cars falling off multiple levels [of the freeway] during an earthquake — that I defy you to pick out. It's incredible what [effects experts] can do."

Mixing up the approaches worked both creatively and financially for the filmmakers. "All of these different [visual] contributions from different areas makes the film, as a whole, much more believable," states Kibbe. The sentiment is echoed by Paull, who concentrated on "building a texture of humanity." The designer contends that "there are a rash of films now exclusively using CGI, and it seems very obvious."

Carpenter explains that when it comes to "effects shots,

what we do first is to ask ourselves, 'Okay, what's the best way to tell the story? How many shots is it going to require, and what's the money going to be like?' We compare that to what money we have and then make a compromise. We'll combine shots together so there aren't four shots here, there's one. But in the end, everything is predicated on storytelling."

Once the film's intricate sequences were plotted out, it was up to Kibbe and his crew (along with Paull's department and the effects team) to execute them. Shooting in anamorphic — the rule on Carpenter pictures — Kibbe went multi-camera with his Panavision packages. He always had at least two operators on hand to shoot a given scene, "and sometimes as many as eight," he relates.

"We had a PanaGlide that we used every day," Kibbe continues. "John is one of the pioneers of using the PanaGlide; he loves it. All of that camera motion in *Halloween* was great stuff."

Kibbe initially wanted to shoot the film on Kodak's 5287 stock, "but it was something like 50 cents a foot more, so I went to 96, which is a wonderful film." The production used 5247 for the few daylight scenes, and 93 for all of the greenscreen needs.

Kibbe's entire crew, including A-camera operator Jud Kehl, Steadicam operator Chris Squires, gaffer Norm Glasser, key grip Charlie Saldana and first assistant Steve Peterson, as well as stunt



**Map-To-The-Stars Eddie (Steve Buscemi) faces off with Cuervo Jones (George Corraface) and the President's wayward daughter, Utopia (A.J. Langer). Kibbe regularly added a half-CGT to his blue-gelled key fixtures — going with straight blue for his backlights.**



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coordinator Jeff Limato — earned high praise from Carpenter and the cinematographer for their work, especially taking into account a nocturnal schedule that encompassed almost 70 nights.

"Everything had to be lit," Kibbe relates. "We didn't have the sun there to back us up. That was a challenge, but it also gave us the ability to create a look and enhance it, and make it as pretty as we wanted — and with less light, because all we were doing was adding light to blackness. So that in itself presents a lot of interesting moods, depending on where you are and what you're actually lighting — sets, alleys or open fields."

Indeed, there was no escaping L.A. for the crew, who shot in all corners of the metropolitan area — from the Sepulveda Basin's Water Reclamation Plant to the famous Courthouse Square on Universal's backlot, "which we turned to rubble," Kibbe says with a smile. "We had a great deal of variety, but we also had to keep everything on schedule."

While *Escape from L.A.* is similar in tone to its predecessor, the filmmakers chose to eschew the almost all-blue lighting scheme of the original — a look which Carpenter says has become, in the years since, "an action-movie cliché."

According to Kibbe, the West Coast setting also dictated a wider palette of light, including some ambers and oranges. He details, "We went for a little bit more reality. I thought about a combination of both [color approaches], and John totally agreed. We thought about using a backlight with a blue cast, or decreasing the intensity [of the blue look]. We'd use a blue with incandescents, but you can still feel it. There are also a lot of bonfires and torches [in the film], which make the [warmer lighting] more realistic. For all the night exteriors, I'd use a blue 12K, and throw on a half CTO. I generally shot at around 20 footcandles — on 5296, that comes out to an f2.8.

Even though he had a Musco on all of the large outdoor sets, and "a tremendous rigging crew" that tackled a huge job with

almost 10,000 feet of cable (as well as five generators going at the vast Sunset Boulevard set in Carson City), Kibbe submits that he is often hesitant to use complex lighting rigs or to light too brightly. "What are you really saying by doing that?" he poses rhetorically. "Often, it decreases the audience's imagination. The darker the tunnel, the scarier it gets."

This less-is-more style of cinematography jibes well with Carpenter. While the director intricately storyboards for his effects shots, he points out that "a lot of the visualization for a movie comes from instinct, from inside. It's based on how you want to tell the story, and how you want the audience to see it. And that particular part of filmmaking is 'directing.' If you don't direct the visuals, you're not directing at all.

"There are a lot of things that you can line up [beforehand]," Carpenter continues. "But I really don't know everything until I'm actually on the set, looking at it and saying, 'Okay, let's try this. . .'. There are a lot of last-minute adjustments. What you thought was going to work sometimes doesn't, so you have to turn the camera around and try it another way. That's just part of the business."

In many ways, Carpenter is using this new production to finally realize his original vision for *Escape from New York*. "Essentially, this film's structure closely resembles that of the original," he says. "It's just a chance to do it in a bigger way. It's like George Lucas said after making *The Return of the Jedi*: 'That's the movie I wanted to make.' He finally had some money."

For his part, Kibbe is glad that his travels with Carpenter have continued. "From a cinematic standpoint, I think doing these types of pictures gives you the ability to do a lot of things that you wouldn't be able to on other types of stories," he says. "You get into a lot of fantasy, in terms of creating really bizarre moods and environments. There are a lot of situations in *Escape* that just don't present themselves in a conventional movie. I'm happy doing what I'm doing." ♦



IN *ESCAPE FROM L.A.*, DIRECTOR JOHN Carpenter's fatalistic vision of the not-to-distant future, a catastrophic earthquake has transformed the City of Angels into a floating island where the puritanical American government has set up a Sodom and Gomorrah-like prison colony for the "morally criminal." His tongue ever in cheek, the maker of 1981's *Escape from New York* has created a sequel aimed to blow its predecessor away — an effects artist's dream project. *Escape from L.A.* boasts nearly 200 shots depicting the coastal city's submersion, along with earthquakes, tidal waves, and a post-apocalypse landscape of scuttled cultural landmarks.

The coveted task of concocting these cinematic calamities was awarded to Buena Vista Visual Effects (BVVE), capping a year that witnessed the effects house's shining contributions to *James and the Giant Peach* (250 composites) and *The Phantom* (140 shots). "Our last three films have been very diverse," says BVVE chief Harrison Ellenshaw, who almost single-handedly built the Disney effects unit into a major facility.

Ellenshaw is second-generation Disney royalty. His father, the great matte painter Peter Ellenshaw, devised incredible tricks for such films as *20,000 Leagues Under the Sea*, *Mary Poppins* and the underrated *Bedknobs and Broomsticks*, cementing the studio's reputation as a pioneer in effects work. The son followed in his father's footsteps as a matte painter, creating some of *Star Wars'* most memorable mattes before being promoted to supervising matte artist on *The Empire Strikes Back*. Ellenshaw's premiere credit as a visual effects supervisor was on Disney's ambitious *Tron* (1982), the first major computer-generated effects film. However, it was his masterful resurrection of the art of matte painting for *Dick Tracy* (1990) that led to his being appointed vice president of visual effects at Walt Disney Pictures. Ever since, Ellenshaw and company have created awesome imagery in the grand tradition.

"Nobody gets tired of doing shots around here," he re-



*Snake sails in during Escape's final battle sequence. The hang-glider assault was staged on the Universal backlot with the principal actors in harnesses and suspended from cranes. BVVE later did copious amounts of wire-removal work, in addition to creating long shots with miniature gliders and puppet pilots.*

## Effecting a New Escape

Computer graphics and model work help render a bleak future in *Escape from L.A.*, which serves as a swan song for Buena Vista Visual Effects.

by Ron Magid

marks, but Ellenshaw's words are bittersweet. Carpenter's futuristic epic will be BVVE's last film. Unfortunately, Disney's recent acquisition of Dream Quest Images has created an untenable situation for Ellenshaw and his associates.

Not that anyone had time to worry about such things while wreaking the kind of destruction *Escape from L.A.* demanded from BVVE and the film's visual effects supervisor, Michael Lessa. His association with Ellenshaw began on the groundbreaking 70mm 3-D attraction *Captain Eo*. Lessa has since lent his skills to such films as *Operation Dumbo Drop*, *Mr. Wrong*, and *The Phantom*.

The first challenge BVVE

tackled on *Escape from L.A.* was The Big One, a supersized earthquake that violently introduces the Pacific Ocean to the San Fernando Valley and turns L.A. into an island. To create this awesome opening sequence, which takes place 13 years before the main action of Carpenter's new film, Ellenshaw and Lessa — both of whom experienced the devastating 1994 Northridge quake firsthand — applied those life experiences to a grab-bag of effects techniques ranging from CG to extensive scale miniatures.

Miniature-maker/destroyer John Stirber, who lived near the epicenter of the Northridge quake, also mined ex-



periences from his past to simulate a gas explosion that destroys Union Station, as well as the collapse of L.A.'s multi-tiered downtown freeway interchange. For the latter effect, Stirber's crew, incorporating many of the top people from the now-defunct Stetson Visual Services, built a towering, two-story, 1/4-scale miniature. This was outfitted with some ingenious practical stage effects to re-create the rolling motion that all Southern Californians have come to know and love. Working from production designer Lawrence G. Paull's sketches, Stirber and BVVE created the pre-credit sequence's most startling effect. "John's people mounted this huge 30' by 30' slab of poured concrete on hydraulic rollers," Ellenshaw recalls. "The entire set was about 40' tall, and all of the pillars holding up the four-level freeway section were on sliders that lifted up and down a couple feet and then rolled forward and backward. That created an incredible wave-through-concrete ripple effect. John also came up with a very clever way of detonating [the miniature] so it didn't blow out all at once."

In fact, with careful planning, Lessa was able to get 1 1/2 takes: "We had a test day, and we knew we weren't going to completely collapse the set, so we shot the test knowing we could use that footage for the beginning of the quake. We broke quite a few things, dropping pieces of railing and cracking the columns, but we never brought the set down completely. We rebuilt it and then, several days later, brought it down for real. The columns were individually rigged so they could run separately or together, and we could vary the motion. John timed everything to create the rocking, undulating motion of a real earthquake, which almost looks like hair flying in the breeze. Each cut was designed as an up-shot, with all the cameras locked off, shooting skyward with debris falling into frame from the overpass above. We didn't want to shoot toward the ground because that would've meant building half of L.A.!"

The freeway destruction was supposed to be a daytime ex-

terior, so Lessa and effects cinematographer Les Bernstein shot the overpass miniature outside in the same spot where they had detonated the Union Station model. "Nothing is better for miniatures than actual sunlight," Lessa opines. "When you put that stuff on stage and light it for sun, that's when miniatures really start screaming 'miniature.'"

Since film grain can all too readily reveal scale and thus hinder believability, Kodak has consistently pushed to develop effects-friendly stocks, such as 5293. "98 has turned out to be pretty amazing," Lessa insists. "It's not as grainy as 96 was. As long as it's exposed right, with really black blacks and nice bright highlights, there's very little grain. Most of the production footage was shot on 5298, so Les had to photograph a few bluescreen shots on 98 when it was unavoidable. But he tried to shoot most of our effects work, including all the blue and greenscreen stuff, on 93. He really knew how to shoot that stock, which was nice."

With five high-speed cameras rolling from 60 to 120 fps, Stirber let his freeway miniature rip; the model crumbled to pieces in a matter of seconds as radio-controlled model cars and a tractor-trailer plunged to their destruction. "We shot it as fast as we could on the VistaVision cameras," Ellenshaw details. "Technically, a model that big should be shot at 48 fps, but we found that in most cases, depending on the angle and the lens, it looked best at anywhere from 60 to 95 fps. On our test day, we shot some falling debris at 120 fps, but that was too fast. When we actually destroyed the model, we weren't taking any chances. We had five cameras on it because once the model went, it went."

To depict the earthquake's aftermath, BVVE commissioned seven or eight matte shots that would establish the new L.A. landscape. "They were generally 2-D mattes depicting the ruins of the Capitol Records building and the Hollywood Bowl, or the broken but still-standing Beverly Hills Hotel," Lessa reveals. "There were some 3-D elements, like CG heli-

copters flying with searchlights. Harrison worked on a few of the paintings. Many were done by BVVE's art department, headed by Allen Gonzales. In addition, Bob Scifo did a couple, and Craig Mullins did one."

Thus, Los Angeles became an instant archipelago. Following this spectacular opening sequence, Carpenter bids adieu to daylight. Virtually the rest of *Escape from L.A.* takes place at night, beginning with the secret submarine ride that brings super-macho action hero Snake Plissken (Kurt Russell) to the prison isle in his attempt to retrieve a doomsday device from the clutches of evildoers.

The unique sequence follows the sub as it travels through the sunken urban wasteland, past some very distinctive, waterlogged landmarks. Plissken's journey takes him from the U.S. Police Force Firebase, south through the Valley, into the Cahuenga Pass, and through what's left of Universal Studios. "It's really quite a unique, fun sequence," Ellenshaw says gleefully.

It was also a demanding one. Essentially, Carpenter was asking BVVE to create an even more astounding undersea tour than *Waterworld's* impressive trip through the submerged environs of Denver. While Stetson Visual Services' miniatures were utilized to a haunting effect in that film, Lessa opted for a CG solution to *Escape from L.A.'s* underwater sequence because of its intended scope. "We went back and forth on that," he says, "but if we had built everything — the freeways with every car, and every building along the way — we would have needed a football-field-sized model. Instead, one of our CG supervisors, David Jones collaborated with Vertigo Technologies for modeling and animation. Together, they developed the shaders to create the texture that contributed to the look of a post-earthquake underwater environment."

Plissken's tour begins leisurely enough as his sub churns through the Cahuenga Pass. But after cranking up the throttle, he rockets through Universal City's Black Tower, careens over the *Jaws*



attraction and slams down onto the Hollywood Freeway. The lengthy sequence involved a combination of 3-D CG and 2-D matte paintings utilizing photographic elements. "Every background started as a still of a real location," Lessa explains, "then we degraded them using 3-D animation so everything

**"Water effects are always tough, but how do we know what such a tidal wave would really look like, considering that we've never seen a tsunami coming down Wilshire Boulevard?"**

—Harrison Ellenshaw

looked as if it had been destroyed by an earthquake. The entire sequence consists of about 20 pretty lengthy shots, ranging from five to 10 seconds each."

Working on SGI and Pixar hardware, BVVE used Alias software for modeling and animation, doing hand-drawn work when necessary. After rendering the CG images via Renderman, they composited the animation elements using Disney's Feature Animation Caps software.

In Carpenter's future, L.A. has become an incredibly unstable place. In addition to another major temblor, the director asked BVVE to create a massive tidal wave that roars through the Miracle Mile section of the famed Wilshire Corridor. As if wreaking havoc with water wasn't difficult enough, the director wanted Plissken to surf the giant wave and catch an escaping baddie, Map-to-the-Stars Eddie (Steve Buscemi), who's high-tailing it away in a convertible, just ahead of the wall of water. BVVE's effusive reaction to the sequence may have single-handedly landed them the job. "Once we got the project," Ellenshaw admits, "we all sat around saying, 'How are we



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Michael Ballhaus & Magnum on the set of *Outbreak* from Warner Bros.

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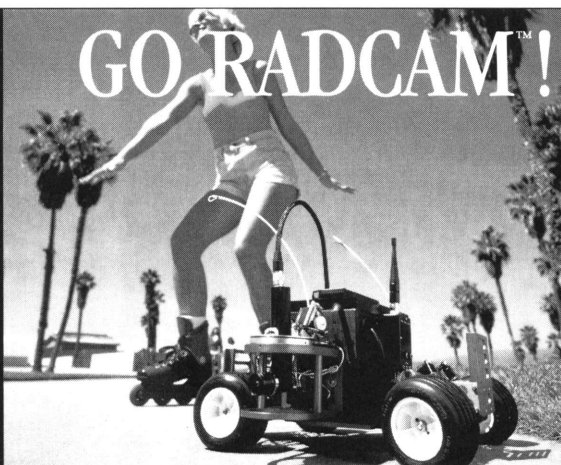
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going to do this tidal wave?' We really didn't have a clue. It sounds so ridiculous, but it had to look real. Water effects are always tough, but how do we know what such a tidal wave would really look like, considering that we've never seen a tsunami coming down Wilshire Boulevard?"

After careful deliberation, BVVE decided that the wall of water had to cascade down the Wilshire corridor with tons of water bouncing off the sides of the buildings. But where to get the water elements? "We basically stumbled upon the solution," Lessa admits. "Dave Jones was cruising around the Internet looking for surf and wave simulators, and he found this wavepark in Texas, the Schlitterbahn Resort, where people can surf real waves in-place."

But that solution created still more problems. When visual effects producer Denise Davis spoke with the wavepark's creator, Tom Lochtefeld, about shooting greenscreen plates of stuntmen surfing for sustained periods of time, she quickly learned that riding the artificial continuous waves took tremendous skill. "People dive into this pool with these tiny three-foot-long surfboards, then get shot up this sluice onto the wave and wipe out," Lessa explains. "It's usually over in about five seconds. In fact, there are only about five people on the planet who can do any kind of sustained surfing on it."

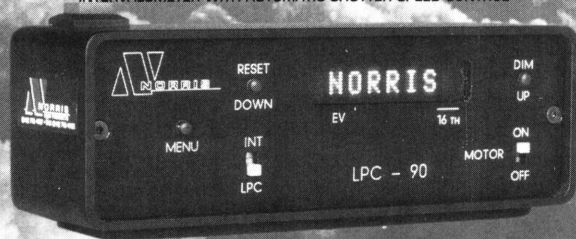
In the end, two professional surfers were enlisted. They were costumed and shot against a huge greenscreen to double for costars Russell and Peter Fonda in long shots. Effects cameraman Les Bernstein once again shot the greenscreen footage using 93. "On our test night, we shot at 24, 30 and 40 fps," Lessa recalls. "We were worried about overcranking, but when we saw the tests, we realized that the surfing motions of our doubles were so graceful that no one could tell they were slowed down. Consequently, we shot all of the water shots at 40 fps."

Back at BVVE, the ruins of the Wilshire Corridor's buildings were built primarily as 3-D CG models, augmented with some 2-D

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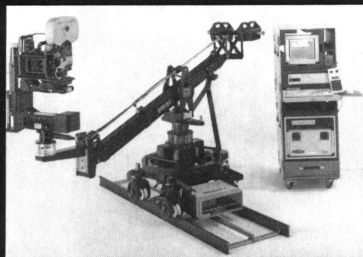


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digital matte painting back-grounds. Then came the task that Lessa and Ellenshaw had anticipated as the most difficult: the creation of a believable tidal wave. Would they use CG animation or real water elements? "We didn't know what we were going to do," Lessa concedes. "We thought we'd shoot lots of waves live at the beach, then try to comp the wave-park surf simulator water into that, but we ended up creating all the water from the simulated waves. We shot enough water footage during our greenscreen shoot to do the whole sequence. I figured the wave would be the biggest nightmare I would ever be involved in, but it just worked; it was a lot easier than I thought it would be."

Ironically, the quake-formed Wilshire Corridor canyon—created after three of the boulevard's four traffic lanes sink into a 30' ditch—was the tougher nut to crack. "The hard part ended up being what I thought would be the easy part: the look of the canyon," Lessa laughs.

As Eddie drives his convertible at top speed along the only lane left on Wilshire Boulevard, Plissken surfs along the canyon, which has filled with water from the ongoing titanic swell. When the wave carries them within spitting distance, Snake jumps off his surfboard onto the back of the convertible. Rather than doing a complicated morph of actor Kurt Russell's head onto the surfer's body, Lessa, Ellenshaw and Carpenter opted for a simple, elegant series of cuts.

Lessa explains, "There are three really cool short shots. First, there's the production-shot footage from behind as Kurt jumps off our camera car onto the convertible. Later, we removed the camera car and used CGI to tear up the street and the buildings and put the canyon in. For the side shot where Snake jumps off the wave onto the car, we photographed the professional surfer at the wavepark going airborne off the top of the wave in front of greenscreen. We blended that plate with a miniature car driven by a 1/8-scale Eddie puppet, built by Rick Lazzarini's company, The Character Shop. Then we cut to the rear shot of Kurt landing on

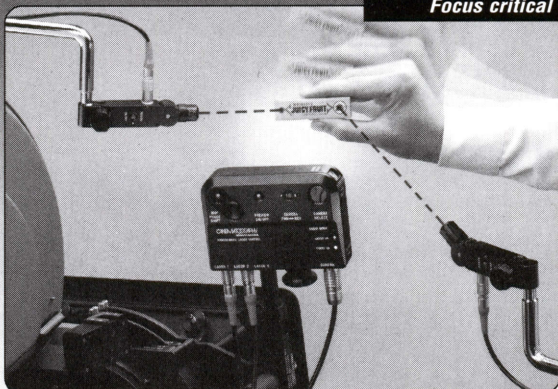


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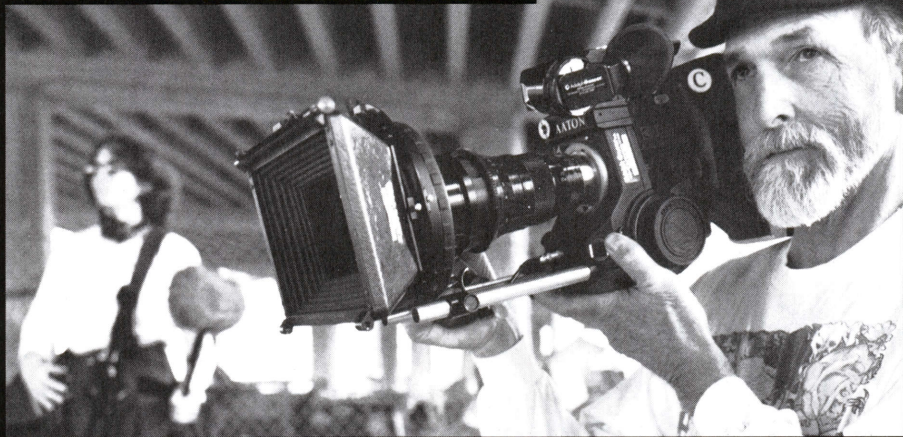
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the trunk. We later filmed him and the car with Steve Buscemi driving down the same road as the camera car and then added the CG canyon and water into the shot."

Says Ellenshaw, "In the old days, we probably wouldn't have attempted these shots; we'd have tried to talk the filmmakers out of doing them! But now, digital techniques allow us to do more things. Without digital, it probably wouldn't have looked very good. Instead, it's quite spectacular."

The final escape from the Island of L.A. took all of Plissken's expertise and every trick known to practical effects supervisor Marty Bresin and BVVE, who combined a full-sized 42' futuristic helicopter mock-up flown on a crane with miniature and CG helicopter shots, climaxing in an explosion when the villains blast the 'copter with a rocket. "The helicopter is burning as it's flying the 18 miles across the sea back to Firebase, where it crashes in a clearing and explodes," Lessa reveals. "That was a practical explosion that Marty and his effects guys did. Besides building a full-sized helicopter for the show, they also built a full-sized silhouette of the helicopter, and they blew it up big."

The cutout was shot locked-off, in the hope that the explosion would wrap around the helicopter shape like a life-sized matte, creating a more realistic effect when BVVE tracked the explosion to their miniature helicopter. "This explosion was so big that after three frames, there was nothing left," Lessa says. "Even though everybody was several hundred yards away, the explosion was so massive it looked as if we were going to get wiped out! Later, at BVVE, we backed our miniature into the explosion as it crashed, tracking the explosion for about 50 frames."

After completing nearly 200 effects shots for *Escape from L.A.*, the BVVE closure "took us all very much by surprise," Lessa says. "It came at a time when we were working on bigger and bigger films, and more and more people were coming to us for repeat business. But I'm sure Harrison and I will continue our association." ♦

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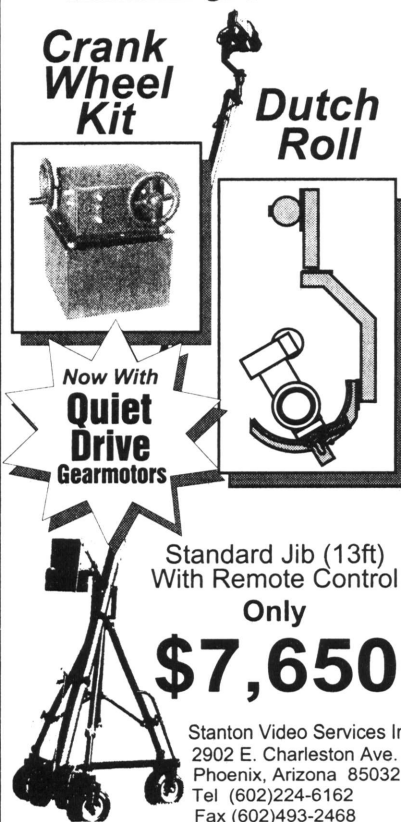
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# John Alton: Master of the Film Noir Mood

The late cinematographer's influential work formed the very foundation of the "dark film" style.

by Gary Gach

**I**N THE SUMMER OF 1923, FIVE LADS DROVE ACROSS THE country, full of optimism, *joie de vivre*, and the excitement of all things new. Upon arriving in California, they parked on Hollywood Boulevard, in front of the Egyptian movie palace. In the lobby, a Gypsy fortune teller read their palms. Each of them, she said, would seek his fortune elsewhere — save for the fifth lad. "You, I tell different," she said. "You'd better stay here. You're going to make it."

That lucky lad was John Alton, a cinematographer whose art has been lauded at recent film festivals in Vienna, Japan, Argentina, Telluride, and San Francisco, as well as in retrospectives at the American Museum of the Moving Image and the Pacific Film Archives. Alton's influential legacy was not always so celebrated, however; in fact, his achievements nearly slipped into oblivion before being rediscovered in the past several years.

Born in a castle in 1901, in a village on the Austrian border of Hungary, Alton lived to a ripe old age before dying on June 2, 1996 in Santa Monica. A child prodigy who sketched constantly, he had his own darkroom by the age of 5. One day, he saw a man on the street grinding a little box; inside the box, pictures danced on a screen. The man explained, "These are motion pictures, pictures that move." Alton had never seen such a thing, and was instantly fascinated.

At 18, he set sail for New York to live with a prosperous uncle, and to take up studies in photochemistry. Alton soon found himself thrust into the movie business in his newly adopted city. "One day,

I had the nerve to drop the books, and I went down to look at the pictures," he recalled. "I stopped at the gates of the Cosmopolitan Studio. All of a sudden a door opened, and a man grabbed me by the shoulders and said, 'Hurry up! We're waiting for you!'"

"They put me in a dressing room, stuck me in a uniform, and put me next to Marion Davies, a big star at that time. At the end of the day, they gave me a check. Well, at home I used to get \$1.50 a week, and here they gave me \$12.50, for one day. So I lost my balance. They called me back the next day to work. I call it 'work,' but I just stood next to Marion Davies, the star. That's all I did! Then we went on location. In 30 days, I became a millionaire [by my standards]. I never went back to the college. I don't even know where I left the books!"

Having found work at the Paramount Studio lab, Alton soon saved enough cash to buy a car and venture to California. He landed his first studio job at MGM's recently bought Culver City lot, where he quickly became a cameraman.

Alton honed his cinematographic skills shooting Westerns for "Woody" Van Dyke, a man who valued the input of his cameramen and often defended their interests when no one else would. Van Dyke once said, "You fundamentally still have the old stereoscope as your basis to work from, but somebody's got to get that picture on the wall. It doesn't make any difference if that figure talks or sings; it's still a picture, and the picture will always be the basis of the movies. What you see with the eye is

*A face emerges from John Alton's inky darkness in **The Spiritualist** (1948). (Frame enlargement courtesy of U.C. Berkeley/Pacific Film Archive.)*



the important thing that governs your thinking and [that's] what people are looking at."

Alton next took charge of the camera department at Joinville Studios in Paris. He was soon trekking across Europe and Asia, where he shot short subjects and foreign-language features. In his spare time, he devoured music and books, and absorbed as much as he could of the art flourishing in museums and galleries, on movie screens, and on the streets.

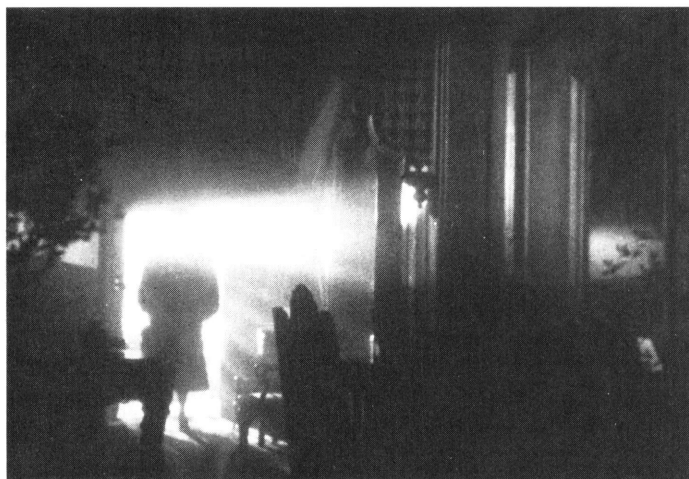
In 1932, Alton was offered the opportunity to design and supervise a five-acre studio in Buenos Aires. The coming of sound had left the thriving Argentinean film industry high and dry, and he stayed there for six years. Within a month of his arrival, he married a former beauty queen-turned-journalist who had interviewed Alton aboard a ship during his passage to South America.

When he wasn't training crews or screening films at the studio, he wrote, directed, and produced a few features on his own. However, he remembered, "Every time I looked at a scene, I saw the light on the actors' faces and didn't hear [a word] they were say-

work out each scene — just the two of us. I'd ask the director his opinion of how he would like to see each scene. Then I'd go home and, even though it took me a lot of time, I'd work out every scene — [including] which lights and tricks to use. So when the time came for shooting, I was ready.

"But when I'd take most any director aside and ask him to sit down with me, he'd look at me as if I were crazy. He'd say, 'I've never sat down with a cameraman to talk about these things. What do you mean? You just pump a lot of light in!' I'd say 'You don't 'pump' light into a scene. That light has to tell something. There's a meaning, and it establishes a mood.' That was the difference between my pictures and some of the others: [in mine], each mood was different. The mood had to be done with lighting. That's my profession — not the lighting and how to light, but bringing out the mood."

Fate dealt Alton his winning card in 1947 when Republic assigned him to a fairly new director who had just joined the studio: Anthony Mann. Mann already had a dozen B-pictures under his belt, along



*The vocabulary of film noir is represented in more high-contrast scenes from **The Spiritualist**. Left to right: a silhouetted figure; a low-angled composition from the "POV" of a crystal ball; reflections in a mirror; and a shadowy face set in a deep-focus frame.*



ing, so I knew I wasn't going to be a director."

In 1939, the Altons migrated to Hollywood. He found work at RKO, Paramount and then Republic, averaging about four B-pictures a year. Despite his experience, he couldn't find a niche in A-films — perhaps because he appeared cocky to many. Remarked director Vincente Minnelli, "[People] interpreted John's continental poise as effete and arrogant. And to rough-and-ready American film crews, that could be the greatest affront of all."

After the freedom he had experienced in Argentina, the idea of changing careers and becoming a Hollywood producer was rather unappealing. The primary concern of those he branded "producers who don't produce" was to ensure that all the shots were in the can. As a cameraman, Alton preferred to plan his shots so that they would convey a film's shifting moods.

"In the morning, when many cameramen came in, they didn't have any plans for what they were going to do, so they just lit [everything] up," he said. "When I got a story, I'd sit down with the director and

with a recently completed RKO noir film photographed by George Discant, ASC. Alton recalled thinking, "At last, here is a director I can really sit down and talk with." Thus began a collaboration that would define a high-water mark of pictorial storytelling; Alton and Mann worked together like guns and ammo.

Their first title, *T-Men*, was a crime procedural based on federal records, which the duo rendered in a noir stylization. Starring Dennis O'Keefe and Alfred Ryder as agents of the Treasury Department who infiltrate a counterfeiting ring, the film captured a new, post-war realism through its deft compositions, which offered compelling depth and space.

*T-Men* begins with a Treasury agent addressing the audience. The scene seems routine until one notices a small statuette of Abraham Lincoln that casts an exaggerated, ink-black shadow; the shadow undercut the traditional centrality of the speaking figure, and also provided a visual pun, implying that government agents were "shadowing" mobsters. Such shots, which were typical for Alton, would soon become



standard noir fare.

The gangster genre, so popular during the Great Depression, used the underworld to mirror corruption on high. Reflective surfaces — glass-topped tables or puddles in the street — figure prominently in *T-Men*, and help to make the point that the honest agents are still a gang, just like their targets. This similarity helps the Feds to understand their prey, but it also gives them a hint of menace.

Another technique that draws the viewer into *T-Men* is the studied performances of the two actors portraying the story's stylishly dressed heroes, who operate undercover. From the moment they "cross the line," the agents communicate only through low-key glances. Particularly memorable is a quick close-up of O'Keefe flinching and lowering his head as off-screen gunshots signal the cold-blooded murder of his partner. Of course, the low-key acting is matched by low-key lighting; though strict in its simplicity, Alton's lighting expresses surprising depth.

Another of the film's high points is the slaying of Schemer (Wallace Ford) in a steam room — a

or three weeks to make a picture. On some days we'd get 70 setups!"

After *T-Men*, Alton lent his touch to a dozen more pictures which, as a body of work, formed the apotheosis of the film noir style. In 1948, he shot five of these films: *Canon City*, *The Amazing Mr. X*. (a.k.a. *The Spiritualist*), *He Walked by Night*, *Hollow Triumph* (a.k.a. *The Scar*), and *Raw Deal*.

In *Mr. X*, Turhan Bey plays a charismatic psychic who preys on dowagers. Of particular interest to lighting buffs are the seance scenes lit by a crystal ball — which even include shots from the ball's perspective. Alton's lighting in these films was often an active, dramatic narrative element, and another striking moment in *Mr. X* is a quick shot of a character walking into a darkly lit room: the figure is definitely female, but it's difficult to ascertain whether the woman is a gullible widow or her suspicious sister.

On *He Walked by Night*, Anthony Mann took over the directing reins from Alfred Werker near the end of production. In the film, a thief turned cop-killer (Richard Basehart) eludes a police dragnet by hiding



scene played out against the spooky strains of a theremin. Throughout the picture, the mystery of such locations as telephone booths, steam rooms and mid-night waterfronts is heightened by their contrast to such everyday edifices as the offices of the Treasury Department and the Los Angeles Farmers' Market. Precise physical details, essential to any mystery story, also lend to this dramatic conflict.

Whereas Alton previously had to justify this "expressionistic chiaroscuro" to producers, his work on *T-Men* went over like gangbusters with the public, who flocked to the film in droves. From that point onward, he could promise a quickie dressed up to resemble a major production, and command A-picture salaries for his work on B-movies.

Perhaps it was for the best that Alton didn't get boxed into making just A-level films. As he himself once noted, "When I go to retrospectives of my work, [they're not showing] the films that took us three months to make, but the little ones that took us two weeks. At MGM, we took three hours for a close-up. [But] at Republic, we often had only two

in the sewers of Los Angeles. The climactic chase scene prefigured inspired similar scenes in many subsequent films, most notably Carol Reed's *The Third Man*. *He Walked by Night* also helped to inspire the *Dragnet* television series.

Still, the richest, darkest and best of Alton's 1948 crop is *Raw Deal*. While *T-Men*, shot in Detroit and L.A., was made in some six weeks, *Raw Deal* shaved that production schedule in half. The latter film is a nightmare journey into the underworld, in which terror is contrasted with idyllic pastoral scenes. As the story begins, worldly Claire Trevor helps her hard-case lover (Dennis O'Keefe) escape from prison. His virginal pen pal (Marsha Hunt) gets mixed up in the escape, creating a twist on the usual romantic triangle. The characters also include a thug (John Ireland) and his boss (Raymond Burr), a mob kingpin given to dangerously smoldering moods. The crime angles keep the love triangle dynamic, and the narration (from Trevor's character) adds to the angularities.

In 1949, Alton made two more classics with Mann. MGM's *Border Incident* (featuring Ricardo



Alton uses shadow play to emphasize drama as Dennis O'Keefe threatens Wallace Ford in *T-Men* (1947). (Photo courtesy of George Turner.)



Montalban, George Murphy and Howard da Silva) follows the "procedural" style of *T-Men* and *He Walked by Night*, as two agents infiltrate a mob involved in the exploitation of illegal labor from Mexico. In this film, Alton's exterior artistry is as expert as his interior work, with landscapes assuming an active importance. First-unit soundstage shots perfectly match the location work of the second-unit. Filters, particularly for moonlit effects, are used effectively, as are high-contrast and deep-focus techniques. Alton's light throughout is modulated yet harsh. Critic Manny Farber cites the film's climax, in which Murphy's character is mulched by a tractor and plow, as one of his favorite scenes in all of cinema.

Another classic from 1949, *The Black Book* (a.k.a. *Reign of Terror*), is an entertaining melange of genres — a "historical romantic action thriller." Yet again, an agent infiltrates a mob. In this case, the criminals are French Revolutionaries engaged in a plot to replace Robespierre with a more politically moderate candidate. Working with William Cameron Menzies as designer and Mann as director, Alton was inspired to pull off some of his most memorable shots, some of which seem three-dimensional. In one scene, the clever placement of 30 extras to look like a mob is a miraculous visual coup.

It was this kind of mastery that inspired writer Philip Kemp to submit that "... in the hands of a master like Alton, cinematography can on occasion take precedence over script, acting, and possibly even directing, in determining the key quality of the creative mix." In the case of a picture like *Black Book*, it's tempting to imagine Mann acting as "ground control" (managing script, actors, crew and post-production) while extreme stylists Alton and Menzies concocted their spells for the actual images. But Alton maintained that he, Menzies and Mann all worked as equals in a creative troika, tending their respec-

tive pastures for a common purpose.

In the Hollywood of Alton's era, "art" was a dirty word, yet his compositions invariably beg comparison with such master painters as Rembrandt, da Vinci, de la Tour and Caravaggio. Alton admitted, "When I got an assignment, I read the script — or the book and the script — and then I went out to the art museums, even to Paris sometimes, to see what the masters had done. [On] *The Black Book*, I copied the masters.

"Nobody knew it, though. Some people knew that there was something going on [in my pictures], but not

what. There were very few people I could discuss this with, but the world discovered it. [Audiences] noticed something different. They noticed that one scene was like this, one scene was like that. It was all worked out."

Film noir was a style that registered a certain social discontent before and after World War II. These films were offbeat dramas in which dark and light, good and evil, were touched by the finger of Fate and switched roles. Noir-style elements *had* cropped up in previous films, but the first to compose a complete noir syntax and grammar out of the expressionistic vocabulary was RKO's *Stranger on the Third Floor* (1940), photographed by Nicholas Musuraca, ASC.

The very term "film noir" was, in fact, an afterthought — a French term derived from the expression "roman noir" ("dark novel") which describes English Gothic fiction of the 19th Century.

In 1972, director Paul Schrader critically championed the form in his essay "Notes on Film Noir" (*Film Comment* VIII, 1). When "Notes" appeared, film criticism was divided largely between the schools of auteur theory and social value. Schrader stressed visual style. His seminal essay singled out Alton as "the greatest master of noir. . . an Expressionist cinematographer who could re-light Times Square at noon if necessary." Comparing him to predecessors like Fritz Arno Wagner and Karl Freund, ASC, Schrader observed that Alton transformed Expressionist techniques to a new generation that craved realism.

Three years later, the Berkeley-based Pacific Film Archives (PFA) scoured film depots and vaults for rare prints of the lesser-known films Alton had made at such long-defunct studios as Eagle-Lion, Monogram and Republic, and booked them with his more famous noirs. These widely circulated retrospectives helped increase awareness of Alton nationwide. In the March 1979 PFA calendar, filmmaker



Dennis Jakob wrote, "Why do we feature John Alton? Simply because, with the growing appreciation of film noir as the most interesting style/genre of the post-war American cinema, it has become obvious that the director of photography is as important, even in many cases more important, than the director in creating the fatalistic mood and compositional tension which are the hallmarks of film noir expressiveness. And. . . Alton proved himself to be the greatest film noir cameraman of all time."

It helped that Alton wasn't "afraid of the dark," as he put it. In his swift lighting designs, he would establish a shot with only three lights, and then subtract one and then another. Alton de-emphasized the human form, making it an element within a mosaic of different visual events. To do this, he would often incorporate dark, negative space that Jakob called "an active aesthetic element in the frame."

Jakob has compared this aspect of Alton's art to that of Josef von Sternberg, ASC. "Theirs is an art of knowing what to reveal and what to conceal. What is concealed is heightened." Sometimes Alton would wrap a scene in ebony blackness (as if there were another frame within the frame of the screen) to invest its minimal patches of light with a higher intensity.

Having applied noir to the French Revolution in *The Black Book*, Alton used the style to great effect in Anthony Mann's admirable first Western, *Devil's Doorway*. Majestic images of man in nature, worthy of Ansel Adams, alternate with scenes so dark that at one point practically all that can be seen of Robert Taylor is his cheekbone and a glint of shirt buttons. The "frame within the frame" motif recurs throughout film, especially in one indoor image of a man and woman engaging in conversation with a gleaming window situated between them.

The year 1949 also saw the publication of Alton's book *Painting with Light*. A groundbreaking look at the camera's role in the making of motion pictures, the book was also the first written by a Hollywood cinematographer. Since 1930, Alton had been a contributor to *International Photographer*, so *Painting* was the fruition of both Alton's studio work and his journalism. The book later went out of print, but the critical re-evaluation of Alton's work led to its reprinting, and it is now a highly respected tome in cinematography circles.

In its pages, Alton maintained that films come in one of three categories: comedy, drama, and mystery. Mysteries, said Alton, allow a cameraman the chance to eschew "choco-

late-covered" lighting and, instead, to light "100 percent naturally." "Naturalism," or "realism," refers to an experience such as a walk on foggy night that fills one with a certain sense of awe. Lighting fog, mist and smoke was an Alton specialty.

Noted Alton, "The most interesting things in the world happen at night. Of course, lighting, and light in itself, is a mystery!" Though he defined and diagrammed the essentials of cinematography in his book, he remained mute as to specifically how he had achieved his signature shots.

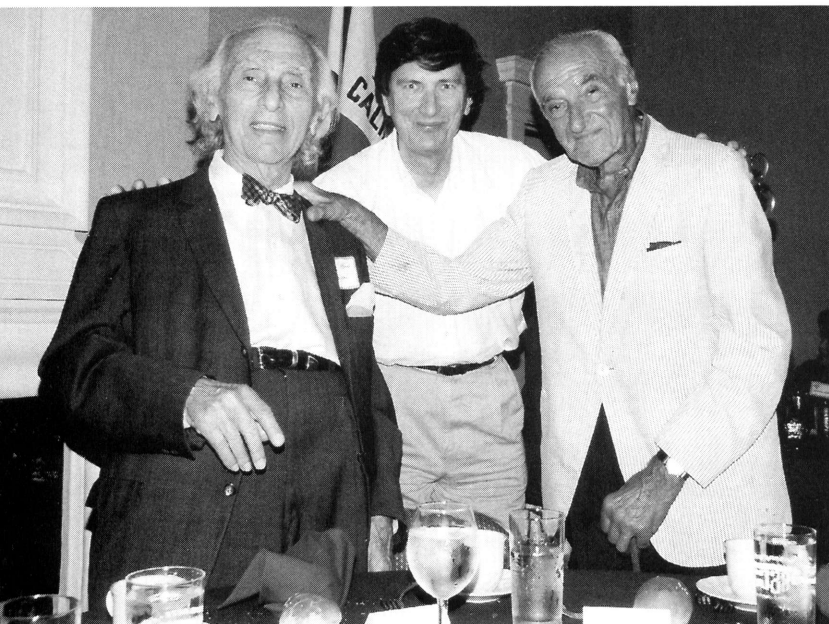
For some, *Painting with Light* left an indelible impression. Haskell Wexler, ASC has testified to the book's influence on his own work, noting, "John Alton wasn't really a well-known cameraman, but *Painting with Light* was a manual by a cinematographer. Most of the things [in the book] had to do with different kinds of lighting — ways of exciting you about ideas in light. Hard lighting. Perimeter lighting. From catwalks, up high. [When I first read it], I was shooting films in Chicago. It was the only contact I had with what Hollywood [cinematographers] did, and it provided my first visual comprehension [of that world]. I didn't know anything about gobos. I didn't realize that the big-time cameramen spent as much time taking things off as they did putting them on. The way I had to work, the problem was always to create enough light to get exposure for slow film and slow lenses. The ideas of double open ends and cutters, and of a cucoloris, were revealed to me in the book."

The text, which Alton had often scribbled in notebooks on the set, also captured some of the cultural life of its day. One subhead is entitled "What is thinking?" Elsewhere, he touched upon Chinese ideograms. He even compared photography to music: "A beautiful feminine close-up can be compared to a violin solo, and a strong characteristic picture of mascu-



*Wounded fugitive O'Keefe is aided by his innocent friend, Marsha Hunt, in Raw Deal (1948). (Photo courtesy of George Turner.)*





John Alton is welcomed back to the ASC Clubhouse in 1995 by active members John Bailey and Stanley Cortez. (Photo: Jeff Granbery.)

line beauty to a cello solo."

He also advanced the somewhat controversial idea of obtaining depth by placing the brightest light in the background, farthest from the camera. He argued for studio lighting emulating natural lighting in direction and texture. He proposed such innovations as an all-purpose conglomeration of lights arranged in a circular fashion, based on an apparatus (which he dubbed a "streamlight") that he had seen at the UFA Studio in Germany.

Alton eventually returned to MGM, where he'd already worked for 18 years. Over the next decade, he made some 34 films. The year 1950 marked the beginning of a creative relationship with director Vincente Minnelli. Their first picture together was *Father of the Bride*, shot in just 28 days. The story's wedding is all the more enchanting because it survives some harrowing detours, such as a series of unexpected late-night phone calls. The nightmare sequence, for which Minnelli expressly drafted Alton, is a visual tour de force; however, MGM was normally known for its polished look, so Alton invested most of the film with the light-hearted radiance of winsome, poignant comedy.

The next year, Minnelli tapped Alton for the ballet scenes in *An American in Paris*. The cinematographer's mobile camera used over 20 different movements during that 17-minute sequence, and actively integrated the choreography. The lighting was equally intricate. Lighting setups often shifted abruptly in mid-shot, from noon to midnight or from blue to red. Matte paintings were used to re-create the Parisian skyline on the Culver City lot.

Alton's cinematography on the picture evoked the work of many famous painters, including Renoir, Utrillo, Rousseau, Van Gogh and Toulouse-Lautrec. A replica of the Place de Concorde (made of translucent plastic) was done up in the style of Dufy, and later serves as the site of the tale's climactic *pas de deux*. Recollected Alton, "The day after the film was

finished, the producer, Arthur Freed, said to me, 'John, that's the first time photography saved a picture.'"

During the rest of the Fifties, Alton averaged about three pictures a year, and he even tried his hand at 3-D filmmaking. Of particular renown is *Slightly Scarlet* (1956), the last of six films he made with director Allan Dwan. Critic Andrew Sarris called it "... one of the most eye-boggling American movies ever made." Bold, even lurid, in its color schemes and effects, the entire film resembles a Thirties-style pulp-fiction illustration, but somehow its pyrotechnics lack the emotional punch of the cinematographer's black-and-white noirs. Alton himself said that he used black and white as colors in his work. "I could see more in the dark than I could in color," he said. *Scarlet* suffers in comparison to his work the previous year for director Joseph H. Lewis on *The Big Combo*, which presented a bitter, repressed world of menace and doom. In *Combo*, a deaf man being murdered *sees* the gunfire.

*Elmer Gantry* (1960) was Alton's last film of note. The narrative revelation of Gantry's worthlessness is underscored through "concealed lighting." *Gantry* roars with fire and brimstone — real, imagined and implied.

After *Gantry*, Alton decided to take a well-earned vacation. "I was tired of fighting [with the studios]," he confessed. "Mind you, I was fighting for their own good. I wanted to give them quality. The people making movies had one aim: to make money. I had one aim: to make beautiful pictures. It was time for me to move on."

In 1960, Alton abruptly quit the industry. He had already resigned from the ASC in 1944. (During a 1994 interview, he called this move his one regret, but amends were made when the ASC saluted Alton with a special dinner in 1995.) He continued to read voraciously and took up oil painting; he crafted over 100 small canvasses and then gave them all away.

Over the years, he remained a figure of mystery, even when critical recognition finally began to come his way. When the PFA was showcasing Alton's work, their officials didn't even know which continent he lived on. They had only received a letter from a forwarding post office that stated, "There is no telling what part of the world I may be in. . . perhaps the southernmost tip of Argentina, the Galapagos Islands, or many other places Charles Darwin had visited before he wrote *The Origin of the Species*."

In 1990, Todd McCarthy, Stuart Samuels, and Arnold Glassman began production on the cinematic documentary *Visions of Light*. The filmmakers planned not only to sing Alton's praises, but to showcase some of his work. Though their attempts to interview him were thwarted (unknownst to Alton), the finished film — which included many striking examples of his work — lured the great cameraman out of his long exile. Alton attended the premiere and was hailed by dozens of contemporary luminaries of cinematography.

At the event, he summed up his achievements with the wisdom of his 94 years, exclaiming, "I took something, improved it, made something with it and I offered it on a platter for the public to enjoy." ♦



# Virtual Camera Movement: The Way of the Future?

A new patent-pending camera system may soon enhance special effects, and even help change the way we interact with visual images.

by Dayton Taylor



*Virtual Camera Movement is a patent-pending cinematographic process which separates the time-base of a virtual, moving point-of-view from the time-base of a subject. One application of the process is a system of recording moving motion picture scenes which appear frozen in time, a feat accomplished by an integrated, multi-lensed camera system which records still frames both en masse and simultaneously. The process also has ramifications in producing interactive virtual camera movement for digital image delivery systems, such as the Internet and interactive television.*

*In the following pages, the system's inventor, Dayton Taylor, offers an overview of this unique system and its potential uses.*

## History

In 1985, during my undergraduate studies at the University of Colorado, I became interested in film theory — in both a technical and aesthetic sense — and its relationship to still photography. I had been exposed to the work of Chris Marker (*La Jetee*) in my classes, and had read in *American Cinematographer* about the special effects work that Industrial Light & Magic had provided for Steven Spielberg's *Indiana Jones and the Temple of Doom*.

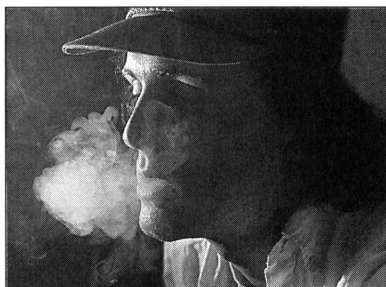
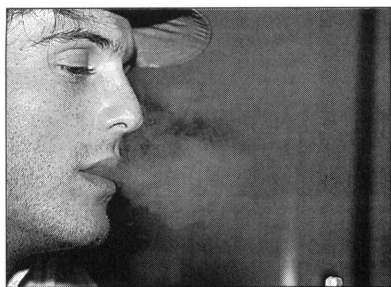
Influenced by Marker, who had made *La Jetee* with a still camera, I took still pictures and imagined the flow of time before and after the pictures were taken. Taking further cues from ILM's work on *Temple of Doom*, for which the special effects company used still cameras to record miniatures frame-by-frame, I used my still camera to animate motion picture scenes. I turned my motor-driven Nikon F3 into a movie camera, shot scenes with it, and then turned it into a film projector so I could play the scenes back on my wall.

The more I worked with this hybrid motion picture-still photography system, the more I began imagining scenes and editing in my head. I started playing with the concept of the match cut in

**Dayton Taylor in action with a prototype of his camera at Lake Hollywood.**



**Right:** Taylor's initial experiments with time-based photography in 1985 include these simultaneous still photos shot with a pair of electronically synchronized cameras. **Below:** His work led to the idea of a camera array system, as seen in a curved position.



narrative film, where a motion picture scene cuts from one shot to another (usually on an action within the shot) for the purpose of making a smooth transition from shot to shot without an interruption in the flow of time. I rigged two still cameras to capture this instantaneous change in point of view by slaving the shutter of one still camera to the other with a remote-control circuit. When the "master" camera fired, so did the "slave."

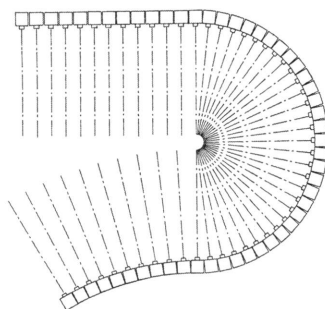
In still photographs, this instant was a point in time from two different perspectives — two completely different photographs with two things in common, *subject and time*. These factors, of course, are the same things an editor looks for when assembling a match cut in film.

I found the pairs of pictures my cameras took to be fascinating because the uncanny simultaneity was so evident in them. I shot hundreds of pictures with this pair of cameras, choosing subjects that I felt would emphasize the uniqueness of the simultaneity of the images: objects in the air, people in motion, etc.

After working with these tools and images for some time, I began imagining the points-of-view between the two simultaneous pictures, just as I had done when I first saw *La Jetée* and when I watched my own still-camera "movies." At first, my fascination with the idea was based on the impossibility of what I was imagining, until I realized that it was not impossible; a "path" of many other potential camera positions and images existed, and if these individual elements were recorded simultaneously and then sequenced like a motion picture, they would appear to create a moving point-of-view of a moment frozen in time. I

fell in love with the idea and wanted to record such images.

Over the next few years, while working in the film industry, I continued to think about the idea and discuss it with other people. I began considering how to build a special camera that would record the effect efficiently and with the largest possible degree of flexibility and versatility. I came up with a design: a modular system com-



prising an unlimited number of tiny 35mm still cameras which all shared a common strip of film.

In January of 1994, I began construction of a camera which was completed three months later.

I started by cutting an old Mitchell 35mm magazine in half, to provide the feed and take-up of the film; I based my camera module design on the simplest box camera I could find: the Kodak Funsaver. I carved and glued together a single camera "module," a 35mm still camera basically consisting of a lens, a box, and a film plane, with a light-tight passage that would allow the film to enter and exit from module to module. I then made a rubber mold of the original. I used the rubber mold to make copies, hooked them together, tested them, found out they needed work, reworked the plastic-and-glue original, made another mold, and so on until I had a good design. After testing 10 mod-

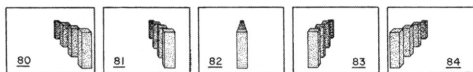
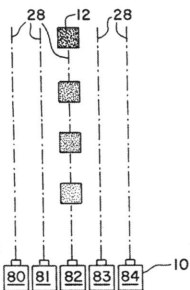
ules, I made an additional 50 copies while a local engineering and design firm (Electrokinetics) modified my bisected Mitchell magazine, outfitting it with the necessary hardware to provide shutter timing, strobe sync, and film transport.

My decision to patent the camera and the process of recording the effect forced me to focus on exactly what the invention was, and what it was not. The complex nature of the patent process requires the creation of text and drawings following very strict rules, with systems of redundancy which are intended to ensure that the words and drawings in the patent all describe the same invention in a variety of different ways.

Through the process of putting my ideas into words and drawings I discovered what the essence of my invention actually was. I understood visually what the special effect would look like, but until I started the patent process I hadn't really thought about how to describe what it was accomplishing on a conceptual level. I knew it had to do with time, specifically the illusion of time captured by motion pictures, and I knew that scenes recorded with my camera were going to trick the eye into thinking that time was passing (because of the motion of point-of-view), when in fact it was not. As I considered how to describe this in the very specific language of a patent, it became apparent to me that heretofore in motion pictures the time-bases of the subject and of the moving camera had always been treated as if they were one. This was for good reason: in motion picture cameras, which record frames sequentially, they are one, and in projectors, which replay frames sequentially, they are one. The time-bases are (and always have been) linked in the sequential systems we use to record and replay motion pictures.

In normal motion pictures the time-base is 24 fps (as dictated by the projection system). By changing the speed of the camera, you can play tricks with the time-base: you can speed it up to 60 fps, or slow it down to 12 fps. If you're a stop-motion animator, you may





Above: Diagram of a linear array camera in relation to a subject and the resulting array of perspectives of the subject. Below: Schematic of a linear camera array with magazines at each end.

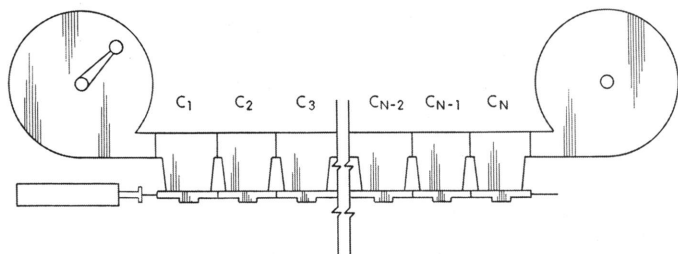
even slow it down to 1 frame per minute or slower, but it's still essentially one time-base which will eventually be locked in the 24 fps time-base of the projector.

As I pondered my patent application, I realized that I had to address the issue of there actually being two separate time-bases, or at least two different time-base indicators: the time-base indicator of the subject and this "other" time-base indicator of the "moving" camera as it travels through space. It appeared to me that this distinction had never really been addressed before, because these two time-bases had always been married together in the systems we use to record and replay motion pictures. The schism that the "impossibility" of their separation represented in normal motion picture scenes is what made the idea so interesting, and the effect so seemingly impossible, but it also made the invention difficult to describe.

The camera's ability to record an infinite number of frames per second (simultaneity) results in zero speed in the time-base indicator of the subject during playback. In other words, the subject is frozen. To understand this,

one need only think about how slow-motion works: the higher the frame rate of a motion picture camera during recording, the slower the movement of the subject in playback. For the time-base indicator (movement of the subject) to slow down, the camera must speed up. Since speed is measured in distance (or frames) divided by time, when time is reduced to zero (simultaneity), speed suddenly becomes infinite. Any number divided by zero is infinity. Of course, my camera doesn't actually move at an infinite speed, it merely "pretends" to do so by being everywhere at once. But the effect is the same: the time-base indicator of the movement of the subjects stops (the subject appears frozen in time). If you think of a sequential camera such as the one marketed by Photosonics (which records frames sequentially as fast as 2,000 fps), the only way such a camera can be everywhere along the path of a tracking shot at once is by moving at an infinite speed through space. This is impossible for a sequential camera, but by recording frames simultaneously, the speed of my camera is essentially infinite. This is the source of the power of the "impossible" illusion it creates.

Since the speed of the moving point-of-view of my camera can be varied by adding more points-of-view (real or simulated), or by skipping points-of-view (dropping frames), the time-base of the point-of-view is independent of the time-base of the subject. And since the speed of the subject can be adjusted by varying the speed of the sequential triggering of the shutters of the cameras (up to an infinite speed — i.e., simultaneity), the time-base of the subject is similarly independent of the time-base of the moving point-of-view. The disconnection of the two time-



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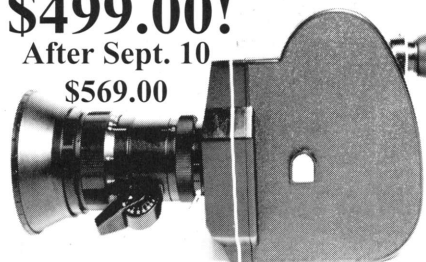
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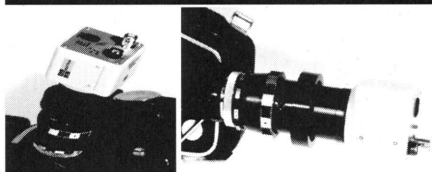
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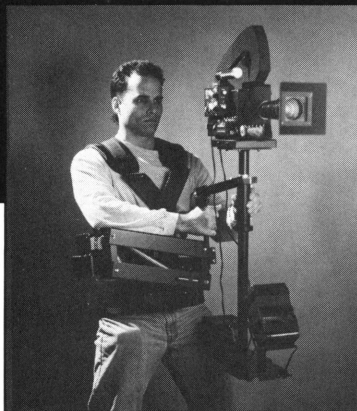


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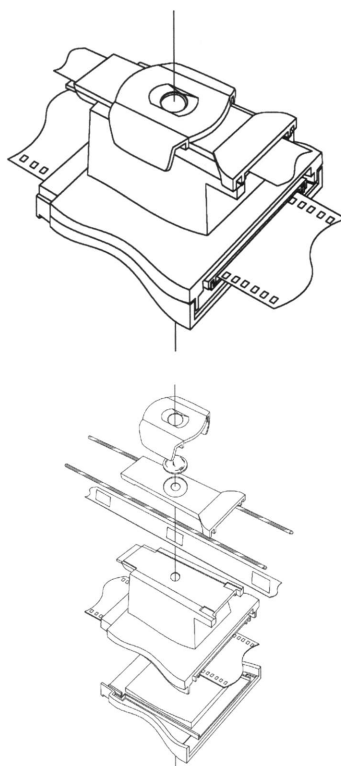
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**Below: Perspective patent drawing of one 35mm camera module. Bottom: Exploded view of module shows relationship of film, shutter and lens.**



bases, therefore, is complete. Either time-base can be varied independently from the other, through a range of speeds from zero to infinity. The original idea of the time-stopping special effect is really just an extreme example (infinite camera speed) of what the invention actually is, which is a process of completely separating these two previously linked time-bases.

The new problem, in terms of my patent application, was that my mind began racing ahead to all of the other ramifications of the separation of these two time-bases. I began imagining rings of video cameras, walls of video cameras, all recording simultaneously, but also continuously and synchronously at 30 fps, filling up hard drives with massive amounts of visual data which could later be accessed non-linearly to create user-controllable, virtual moving points of view of real, photographic, live or recorded events. This was what the separation of time-bases really meant — not just freezing things or creating weird new effects, but completely

freeing the time-base of a subject from the time-base of a virtual, seamless, moving point-of-view. In the rapidly evolving world of interactive networks and interactive TV, this would revolutionize our relationship to two-dimensional scenes, and eventually to three-dimensional scenes, placing control of point-of-view with the viewer.

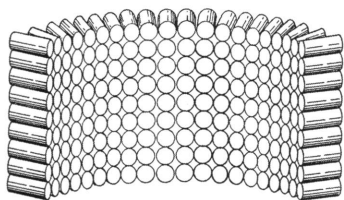
I say that this realization was a problem because it first appeared to me that the invention itself was almost infinitely complex. How could I possibly describe the future of interactive TV in my patent application? Most of the technology which would someday drive the interactive networks didn't even exist yet. But I kept coming back to the notion of what the invention really was; it wasn't a camera, and it wasn't a machine which would someday serve up interactive TV. It was, in fact, a method of producing the point-of-view of a "virtual camera" by selectively sequencing images captured by a plurality of synchronous, simultaneous cameras, thereby disassociating the time-base of the subject from the time-base of this virtual point-of-view. My patent application (which I called "A System for Producing Time-Independent Virtual Camera Movement in Motion Pictures and Other Media") describes this essential nature of the invention, and is now pending.

As I began a new design for the special effect camera with Electrokinetics last year, I began to consider how to optimize it for maximum versatility. I realized that while stopping everything in the frame may be an attention-grabbing effect, some subtler aspects of the effect might be equally in demand one day and provide additional long-term markets for the camera system. It seemed obvious that I should put an emphasis on designing a system that could easily be used in combination with other special effects techniques — particularly motion control and digital film. The effect itself is essentially a film effect and is not digital-dependent, but so much is happening with digital film effects these days that one can hardly do any special effect any-



more without part of the process being digital.

The single most important tool in digital effects is layering (matting with multiple layers of mattes), and its counterpart, image tracking and image stabilization (the latter of which greatly enhances the effectiveness of matting techniques). One option I wanted to incorporate into the new design was the ability to isolate various parts of the shot for "freezing" via layering in post. Another was the ability to start and stop time within the shot (and within the camera).



To ensure that my new camera would be able to do both of these things, I designed it with the capability of shooting frames sequentially or simultaneously, with the ability to switch modes in the middle of a shot, and with perfect registration of images from shot-to-shot for compositing, while also making it as flexible (bendable and twistable) as possible on-the-fly (from take-to-take).

To help conceptualize what the camera is capable of, one must first forget the idea of how a normal motion picture camera works (motion picture film passing through the camera with each frame being exposed sequentially in the camera's gate). Instead, think of the film itself as "being" the camera (it also helps to visualize the film stretched out not vertically, but lengthwise, as it sits in the camera.) If you consider the idea of being able to expose each frame of the shot whenever you want, not just simultaneously, you can begin to imagine the many uses of the camera.

Because the camera can record frames sequentially, it can "pretend" to be a normal motion picture camera. The most important implication of this ability is in layering. By shooting takes in which nothing is frozen in the shot, one could create a background



*Above left: A schematic conceptual diagram of a planar array of video cameras. Above, top to bottom: These frames were selected from a sequence of 60 captured by a prototype camera. Note the perceived camera move to the right in relation to the static subjects.*

plate which contains normal motion, and then freeze a single element in a subsequent take. Or that

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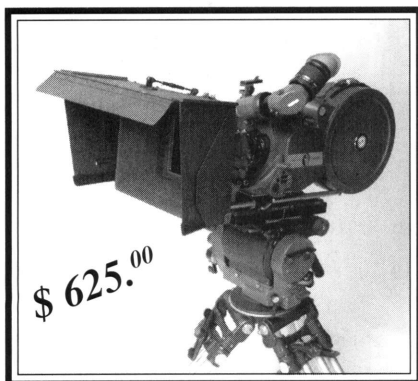
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single element could suddenly be frozen in the middle of a subsequent take. The takes can then be layered in digital film and the frozen parts blended seamlessly with the moving parts of the image.

Additional effects can be created by firing the cameras randomly, in simultaneous sets, or with drastic, sudden "speed" changes (imagine changing from 120 fps to 12 fps within the space of one frame without changing the speed of the camera's movement). Although the camera is long, like any camera it can be moved during a shot. If it is moved by a motion-control rig, the move can be repeated for compositing.

In order to better elucidate the versatility of the camera, I've come up with a series of potential usage scenarios:

- A very complicated scene full of extras and animals could be "frozen" in the middle of a tracking shot, after which a character could walk into the frozen scene, passing behind foreground objects (frozen people, etc.) and in front of background objects, while the camera would be free to move around with respect to the scene.
- In a scene where the "camera" tracked along the beach looking out at the ocean, the ocean could be "frozen" while the camera kept tracking.
- A single element in the frame could be frozen: for example, an actor could be "frozen" in an uncomfortable, gruesome position to simulate a dead body while the camera moved around freely. Similarly, by applying the effect mid-shot, an actor could "die" on camera. Dead animals could also be created harmlessly this way.
- The camera could capture frames simultaneously in groups (say, for example, 12 frames each), and in intervals (for example, half-second intervals). The effect of doing this repeatedly would be a smooth point-of-view of a subject which

is leaping a half-second forward in time every half-second, then freezing for a half-second, then leaping forward again, and so on. If layered with conventional motion, this type of motion could give a moving object or character within a scene a very unique (and conceptually disturbing) look.

Of course, the system can be used purely for aesthetic reasons as well. Like any technological innovation, only through application of the technology will all of the system's capabilities be revealed.

### The Interactive Future

The widespread capability of non-linear playback of motion pictures is imminent in the realm of the Internet and interac-

**Digital interactivity is destined to bring about major changes in how we record and view events.**

tive TV. Virtual camera movement is essentially a system of non-linear recording. It is the production-end counterpart to interactive television.

Virtual camera movement will be produced with digital video cameras shooting hundreds or thousands of images simultaneously in arrays at 30 frames per point-of-view per second. The huge databases of images that these camera arrays will record will then be interactively played back and sequenced by computer, allowing viewers to simultaneously control individualized virtual moving points of view of subjects as time flows forward or backward, or is stopped.

Imagine using such a camera system to record the finish line of the hundred-yard dash at the Olympic Games in Sydney, Australia in the year 2000, or imagine recording a boxing match with a dome of cameras over the ring. Digital interactivity is destined to bring about major changes in how we record and view events.



In the coming years, interactive TV systems will be implemented on a wide scale, the speed of the common Internet connection will increase, and the capacity and speed of CD-ROMs or their equivalents will increase. As these things happen, there will be an ever-increasing incentive to record scenes which embody fully interactive virtual camera movement — from virtual reality to games to televised sporting events to interactive digital multimedia presentations.

Even without interactive playback systems, a hybrid of the special effect and interactive camera systems can be created today to record instant “frozen” replay scenes in sports. A series of digital still cameras controlled by a computer can capture simultaneous digital still images instantaneously. The computer can then instruct the cameras to download their images into the computer, assemble them in a series, and almost immediately output “frozen” moving shots to conventional playback systems such as conventional TV.

Eventually, when you view certain images on your TV or your computer, you will have the option of adjusting the position of your personal point of view, as if you had control of the camera that shot it, while the scene moves forward in time. And because the system that will produce this type of interactivity will have many points-of-view, if your viewing system permits, you will have the option of watching the scene stereographically (in 3-D). All the system will have to do is provide you with two different images — one for each eye, recorded by two side-by-side cameras.

#### Technical Notes

The following are some of the functional capabilities (and limitations) of the newest design of my film camera system:

- The system has the ability to seamlessly integrate the time-stopping effect and regular photography through compositing and the internal option of shooting frames simultaneously — or sequentially at 24 fps. Plates (sets of stills) can be recorded

sequentially and/or simultaneously in layers (separate shots which are layered in the post process), starting and stopping time in-camera at any point in a shot and on any layer. The camera system operates silently in simultaneous mode and at 24 fps (for sync-sound recording).

- The system has perfect registration (for composite shots) if it is used in a stationary position, or it can be moved by a motion-control rig with motion-control options equivalent to conventional techniques (although the camera is “long”).
- The system does not require strobe lighting for synchronicity and can therefore shoot exterior scenes. (It is strobe-sync-ready and has a strobe-sync output if this is preferred.) Regardless of whether it is used indoors or out, by not requiring strobes, the system allows lighting that will integrate better with the conventionally shot parts of the scene.
- The system has the ability to record time passing from a stationary camera’s point of view. Of course, a normal motion picture camera is a much better way to do this, but for seamless integration of the effect it might be nice to do it within the special effect camera. The way this is done is by moving the entire camera in the opposite direction of the sequential firing of cameras. By moving faster or slower than the sequential firing of cameras, it can appear to sit perfectly still then gradually begin to track at any speed in any direction, or can change speed or direction during a shot, suddenly freezing a subject at the end of a shot, etc.
- The system is designed to be rigid yet compact, meaning it can be hidden or removed in post more easily than conventional still cameras. It is not a cumbersome rig loaded up with carefully aligned still cameras. It is sturdy yet flexible, as well as compact and lightweight. →

## Avenger



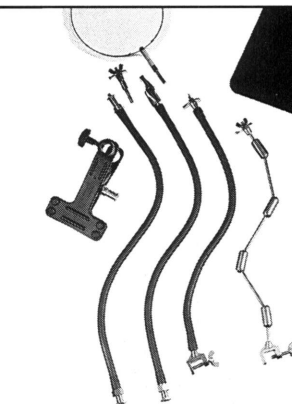
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- The system is very efficient to use — the film is continuous, making it easy to deal with in post and allowing unlimited takes on set simply by reloading the magazine. A roll-out can only occur between takes, not during a take as with a conventional camera. A footage counter indicates when it is time to reload.
- The system can be flexed and twisted between setups without reloading the film and without any need to realign the lenses. The lenses automatically align themselves to the overall curve. It's like a giant flexible snake that can be locked in any position within the limitations of the piece of film inside: it can be straight, curved, inverse curved, tilted up, tilted down, etc.
- The system can appear to pan left or right during a shot or can appear to track in a semi-forward direction. Although the lenses are always "pointed" straight forward, by selectively "printing" the left or right side of the frame (the 35mm frame is horizontal and 8 perfs wide) it can achieve these pan and "direction" effects. By correcting the perspective of the selected portion of the frame in digital film, the wide-angle lens distortion which results from selective use of the frame can be corrected ("printing" is in parenthesis above because all post-production is done in digital film).
- The system can track straight forward when it is shooting sequential frames, but runs the risk of bumping into objects on set since it is so "wide" (or long, depending on how you look at it).
- The system is modular and can be configured to any length. If the shot is only going to last four seconds, it can be configured to only be 96 cameras long, etc.
- The system has a minimal need for morphing to create intermediate frames. The lenses are so close together (1.5 inches) that only if the point of view is to move very slowly would you need to introduce artificial points-of-view. Frames can be skipped in post if the apparent movement of the perspective is too slow.
- The system is so close to being perfectly registered (optical alignment of lens axes) that there is a minimal need for stabilization in post, yielding the sharpest possible image. Because the optical alignment of lenses is so good, the lens characteristics (particularly wide-angle lens distortion) are uniform from frame-to-frame, producing full-frame image stability and sharpness. For variations in optical axis alignment, a digital film image stabilization tool can be used. ♦

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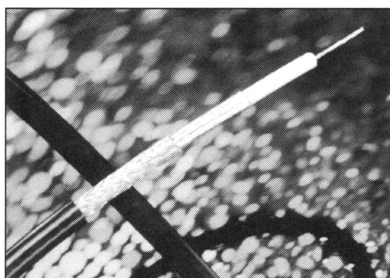


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CAMERAS • LENSES • ACCESSORIES



compiled by Andrew O. Thompson



### Micro Coax Cable

Belden announces a subminiature precision video coax cable that handles analog, component and composite serial digital video systems, yet has a 30% smaller O.D. and weighs 40% less than standard RG-59-type video coax cables. It's intended for both mobile truck applications and production studio environments, and features a unique 19-strand design, with 37 AWG strands. The resulting 25 AWG center conductor provides higher flexibility (with longer flex life) than any traditional 7-strand construction. This cable also delivers lower attenuation because this center conductor contains more copper than 7-strand designs.

To ensure signal integrity, a foil/braid shield — Duofoil and tinned copper braid — is used. The cable's gas-injected foam high-density polyethylene insulation provides superior crush resistance when compared to standard foam. To facilitate color coding, the cable's standard PVC jacket is available in 10 different colors. The cable's nominal impedance is 75 ohms; nominal capacitance is 16.5 pF/ft, and velocity of propagation is 82%. The maximum operating voltage is 300 VRMS (UL). It's available in 500 and 1,000 foot put-ups and can be used with 75-ohm, BNC-type plugs.

Belden Wire and Cable Company, 800-BELDEN-4.

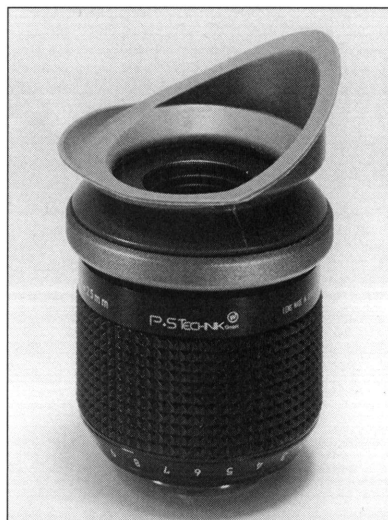
### New 9mm Lens

Heitz Service is distributing Kinoptik's new 9mm f/1.5 N Wide Angle (75 degree) Apochromat for Super 16. The lens has eight multi-coated optical

elements and focuses down to nine inches and accepts Aspheron (and other wide-angle and fish-eye) attachments so that the lens can be used at both 9mm and 6mm (approximately) focal lengths.

The lens comes in extra solid all-metal Arriflex Standard or PL mounts with specially-g geared focus and diaphragm adjustment (tripod or hand-supported), as well as an Aaton mount. Each lens is individually bench-tested, supplied with MTF and spatial frequency curves and covered by the Kinoptik buyer protection warranty.

Heitz, (718) 565-0004, Fax (718) 565-2582.



### Wide-Angle Eyepiece and Anamorphic Viewfinder

P+S Technik has developed a new wide-angle eyepiece (enlargement 10 times). In addition to its use with the Arri 35 BL cameras, this eyepiece is especially suitable for Super 16 Arri SR I and II cameras. Also available is an anamorphic viewfinder that can be switched from standard to anamorphic use. The compact design of the viewfinder has no effect whatsoever on its pivoting range.

P+S Technik, +49 (089) 69-37-01-57.

### Flat Monitors

Transvideo USA recently introduced the LCM06 compact 6" Multi-Standard LCD Color Monitor. Thanks to flat LCD technology, a Transvideo monitor can be mounted just about anywhere a video display would be of service. The LCM06 is compatible with all signals — PAL, SECAM, NTSC, Y/C, Y/Pr/PB, RGB, synchro and digital. A simple four-button keypad provides access to multilingual on-screen menus that control input selection, picture adjustment and programming of backlight settings. The monitor stores up to three setting configurations for easy repeatability. The most recent configuration is automatically selected when the monitor is turned on. The monitor features a tally light and operates on power from a 12V battery or AC mains.

Transvideo USA, (805) 520-1275, Fax (805) 520-7342.

### Portable Power Inverter

Statpower Technologies has introduced the NOTEpower 75, a compact new inverter designed to offer 75 watts of AC power from the convenience of a car's cigarette lighter or any 12V battery source. The unit provides the luxury of operating or recharging most portable computers, cellular phones, fax machines, camcorders and video games from your vehicle, and yields a 90% conversion efficiency rate. This allows almost all of the battery's power to be converted into useful AC power. With built-in safety features, the NOTEpower allows for worry-free operation; the inverter shuts off automatically if the unit overheats or overloads.

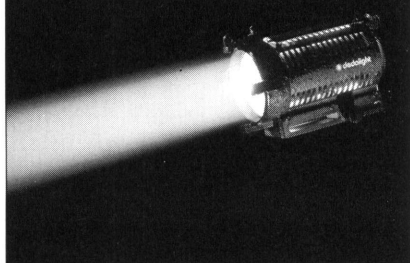
Statpower Technologies, (604) 420-1585, Fax (604) 420-1591.

### TecNec Cable Tester

TecNec introduces a cable tester equipped to analyze S-VHS cables. The CT-Y/C cable tester works on any combination of S-VHS, BNC, RCA (phono), F, XLR (all three conductors), 1/4" phone and mini-phone connectors. All



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testing is wired parallel, allowing for "cross-testing" of your cables. The CT-Y/C tester is constructed with a heavy-duty steel stage box design and is rugged enough to be used in house or out in the field. While testing, it detects shorts and intermittent operation. The LED display glows with cable status. The tester, which operates virtually hands-free on one 9V battery, also incorporates the Neutrik combo XLR-phone connector for greater versatility.

TecNec, (914) 246-0428, Fax (914) 246-0626.



### Fujinon Lenses

Fujinon introduces the S14X7.3 BMD-D24/WCV-65, the first wide-angle lens for use with 1/2-inch 3-CCD color cameras. This lens' wide angle, compact design and superb optics make it ideal for any videoconferencing and distance-learning application. It has a focal length range of 5.5 to 77mm (with a minimum stop of f1.9 from 5.5 to 69.7mm and f2.1 at 77mm). Minimum object distance is 0.53m and the lens has a horizontal angle of view of 60°, 23'. The lens itself measures only 192.5mm and weighs 1.2kg.

Fujinon has also introduced a family of 18X lenses that bridge the gap between low-cost professional and high-performance lenses designed for broadcast applications. The 18X lenses combine high-quality optics and Fujinon's proprietary Aspheric Technology (AT) and have a 2X extender and macro capability. This series is designed for rugged service, yet are extremely lightweight thanks to the benefits of AT.

There are two models in the series. The A18X9, for 2/3-inch cameras, has a focal length range of 9 to 162mm (18 to 324mm with extender deployed), a minimum stop of f1.8 and weighs 2.8 pounds. The S18X6.7, for 1/2-inch cameras, has a focal length range of 6.7 to 121mm (13 to 242mm with extender deployed), a minimum stop of f1.8 and weighs 2.75 pounds. Both lenses have a minimum object distance of 0.9m, are

available with or without extender, and are compatible with Fujinon's wide range of handheld lens accessories.

Fujinon, (201) 633-5600, Fax (201) 533-5216.

### Rear-Mount Filters

Schneider/B+W introduces rear-mount motion picture lens filters that screw directly into the rear of most Canon, Nikon or Angenieux telephoto lenses. The Biermann and Weber filters come in either anti-reflective or multi-coated glass, and are mounted in brass rings that prevent the filters from binding or locking to the threads of the aluminum mount. They are made from superior quality Schott glass (free of any color cast) and are ground and polished for absolute parallel thickness so as to give the cinematographer consistency of color and filter performance. The filters available include neutral density (ND), clear UV haze, 85-series daylight correction, color correction and any other standard filter type.

Schneider Corporation, (516) 496-8500.



### Cinekinetic Dolly

Cinekinetic introduces Wonky Wheels, a dolly so light in weight and small in size that it is fully steerable in locations previously inaccessible even to small crews. This dolly consists of two fully-assembled axles and wheels, a handle, and linkage bar. Wonky Wheels steering is very responsive; one can choose from straight-locked, crabbed, four-wheel controlled, two-wheel controlled or free-wheeling. Adjust the supplied linkage bar and/or two locking pins



to shift from one steering mode to the other.

Wonky Wheels is sold in kit form with a choice of platforms. Those who need a full-sized dolly can attach Wonky Wheels to Cinekinetic's Sawed Board. With the wheels attached, the Sawed Board becomes a full-size steering and crabbing dolly. All that is required for its assembly is the insertion of two top-mounted bolts through holes drilled in the Sawed Board. When the wheel axles are removed, the Sawed Board turns back into a tracking dolly. For use of a dolly through tight places and doorways, Cinekinetic has the Wonk Board, which is narrower than the Sawed Board and guarantees greater mobility. Either platform will accommodate any professional tripod fully-laden with jib. Wonky Wheels' maximum recommended weight capacity is 450 pounds.

Cinekinetic USA, Tel/Fax (702) 731-4700.

#### Pioneer and Sonic Systems Now Compatible

HHB, the nationwide distributor of the Pioneer D-9601 high-sampling rate DAT recorder, announces that this recorder can be used in conjunction with the Sonic Solutions' Sonic System digital audio workstation. The D-9601 provides RS-422 serial remote control, double-speed digital copying between two D-9601 machines and full compatibility with current 44.1 and 48KHz sampling rates. The D-9601 and Sonic System also present the audio industry with a pathway to a 96KHz future as one can load 96KHz information recorded on the Pioneer directly into the Sonic System. From there one can edit and do EQ, mixing and mastering all within the system. The project can then be returned to the Pioneer for transport.

The D-9601 records and plays at 88.2 or 96KHz yielding a frequency response of 44,100 or 48,000Hz. The expanded bandwidth ensures that the low-level artifacts created by anti-aliasing filters occur beyond the range at which human hearing is most effective. The D-9601 also offers an onboard sample rate converter allowing the unit to output either 44.1 or 48KHz sample rates. This feature maintains compatibility with current DAT and DAW standards. The D-9601 transport is a four-motor design with a loading mechanism housed in a

## SX-S Portable Mixer by Sonosax.

From Sonosax in Switzerland comes the compact SX-S which earned a 1995 Academy of Motion Picture Arts & Sciences Technical Achievement Award.



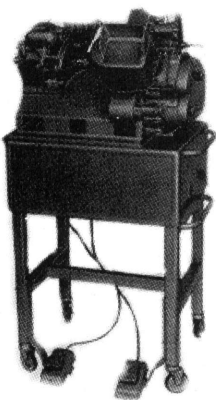
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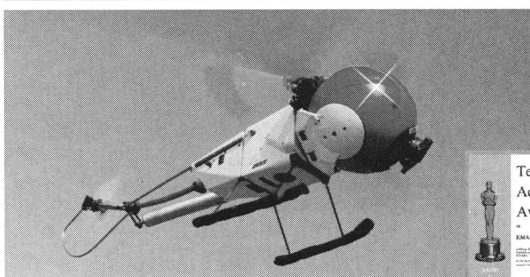


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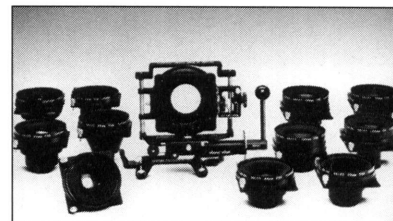
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HHB Communications, (207) 773-2424, Fax (207) 773-2422.



## Clairmont Swing/Shift System

Century Precision Optics is now manufacturing Clairmont Camera's Swing/Shift System for sale. The system utilizes bellows, swings, tilts, rises, falls and shifts to provide view camera controls to motion-picture cameras. Film-makers can distort the shape of a subject, remove unwanted objects from the frame or shoot straight into a mirror without catching the camera's reflection.

Access to shifts and swings also provides nearly total control over the focus plane for extremely deep or shallow depth of field. Distant objects and extremely close ones can both be sharp in the same frame. Focus can also be limited to a particular object, isolating it even from objects the same distance from the lens.

The Clairmont Swing/Shift System also enables the cinematographer to tilt or swing the film plane in order to alter the shape of the objects in the frame. Keeping the film plane parallel to a tall building while shifting the lens up to capture its full height produces a distortion-free perspective. Tilting the film plane away from the building emphasizes its height by causing the its planes to converge at the top.

A built-in rack-and-pinion focus mechanism makes it possible to pull focus during a shot without touching the lens. The system's bellows allow focusing down to a few inches.

Century offers optics for the Clairmont Swing/Shift System in a wide range of focal lengths including: 18mm (f2.8), 20mm (f2.8), 24mm (f3.5), 35mm (f2.8), 456mm (f2.8), 55mm (f2.8), 90mm (f2.8), 105mm (f2.8), 135mm (f4.5) and 150mm (f3.8).

Century Precision Optics, (310) 392-4531, Fax (310) 392-0183.



### Gefell MD-100 Microphone

G Prime Limited is the United States distributor of Microtech Gefell's new MD100 microphone. The MD100 is a cardioid microphone using a dynamic pickup transducer. The transducer has a built-in elastic suspension to make it insensitive to handling noise. The mike was designed for hand-held use as a vocal mike. It is also well-suited for music recording and sound reinforcement in professional and semiprofessional applications. The moving coil pickup transducer is extremely rugged. The frequency response extends from 15kHz down to 150Hz with a roll-off below that point. The capsule is a pressure gradient design with a transformer providing a 220ohm output impedance. It is housed in a woven metal headgrill with built-in pop filtering. The MD housing is a contemporary design weighing 375 grams (just over 3/4 pound) and is a pleasing fit for the hand. The microphone is finished in dark bronze and comes with a wooden case.

G Prime Limited, (212) 765-3415, Fax (212) 581-8938.



### Laser Distance Meter

Leica Inc. announces the availability of its electronic distance measuring device, Disto, a handheld laser distance meter that offers users the convenience of simple, point-and-shoot operation. The Disto can reliably measure distances with an accuracy of 1/8" even at its maximum range of 330 feet. By using a visible laser target mark, Disto allows one to see the exact point being measured.

Leica, (800) 367-9453, Fax (770) 447-0710.



# OPPENHEIMER C A M E R A

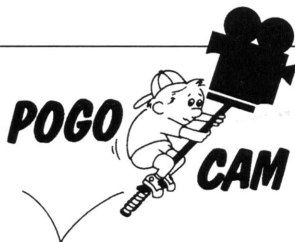
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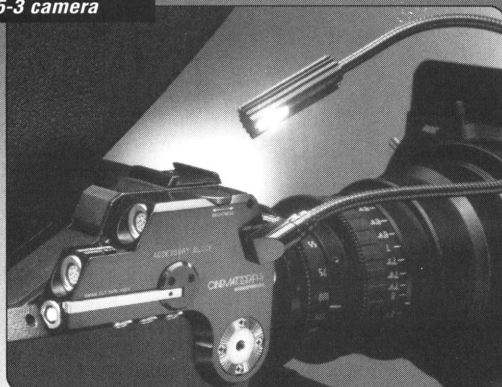
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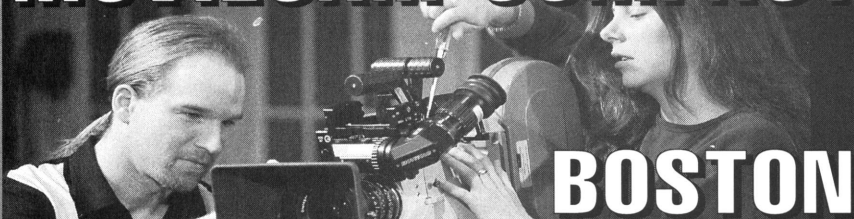
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## Shadetree Software

Cinema Graphics Inc. announces Shadetree software designed for use with Microsoft/SoftImage's Mental Ray software. Shadetree is an interactive shader language authoring tool that allows non-programmers to quickly create and edit shaders for Mental Ray.

Shadetree's visual programming environment precludes users from having to struggle with a text editor to program shaders. With its interactive graphical user interface, Shadetree facilitates the designing of shaders. Users begin working with materials, colors, textures and images, and then mix them with pre-built macro "boxes" to form a shader. They have the full power and flexibility to create any shader they need simply by connecting the macro boxes in a treelike graph.

Shadetree has an open architecture allowing users to add their own custom macro boxes at anytime. Their custom macro boxes can be made from shader language source code or from existing Shadetree files. To get demanding shaders written in less time, there are more than 100 prebuilt example shaders to get the user up and running quickly. There are also more than 50 regular and random pattern generators to help add fine details to surfaces without having to build complex model.

Cinema Graphics Inc., Tel/Fax (818) 718-6320.

## Trovato Balanced Pan Head

Trovato Manufacturing introduces a new balanced pan head designed for cameras weighing under 20 pounds and intended as a cost-effective way to achieve the fluid motion offered by a pan head.

The Trovato head pans and tilts the camera at its balancing point, providing smooth and uniform moves. The pan and tilt functions are independently adjusted to the operator's preference. The unit can be used upright on a tripod like a conventional head and upright or inverted on a jib arm. When mated with the Trovato Cam Jib the four axes of the jib and head give a freedom of motion that allows the camera to float effortlessly.

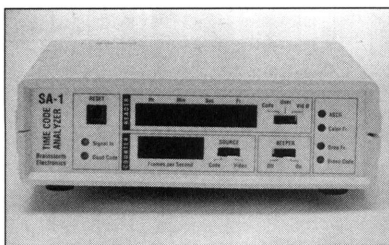
Trovato Manufacturing, (716) 244-3310.

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### Time Code Analyzer and Repair Kit

Brainstorm Electronics introduces the new SA-1 time code analyzer distributed by Audio Intervisual Design. This device incorporates the analyzer functions of Brainstorm's SR-15+ Distripalyzer in a small portable unit for studio or location operations. The SA-1 identifies time code format and monitors its phase with video and reports any errors. This analyzer identifies time code errors with faulty address, video phase, format (24,25, 30, 30DF), or frequency of frame rate. In addition, a comprehensive report that includes format, video phase and time code errors can be sent to an external computer or printer through the rear panel serial port. On location, the SA-1 operates with a 6VDCV battery pack.

Brainstorm also presents the SR-3 time code repair kit, which identifies and repairs faulty code. Time code is regenerated over drop-outs, locked to either incoming code or to external reference. The regenerator uses proprietary phase locking to clock the output time code, which is continuously updated to follow input variations. If the incoming code is synchronous but out of phase with the video reference, the SR-3 can automatically align time code to the closest video frame edge. If a missing or false drop frame flag is detected, the unit repairs it automatically. The front panel features a large display which can read time code or user bits. LED's indicate format: 24/25/30ND/30DF and NTSC rates. The SR-3 generates all standard formats referenced to internal crystal or external video.

Audio Intervisual Design, (213) 845-1155, Fax (213) 845-1170. ♦

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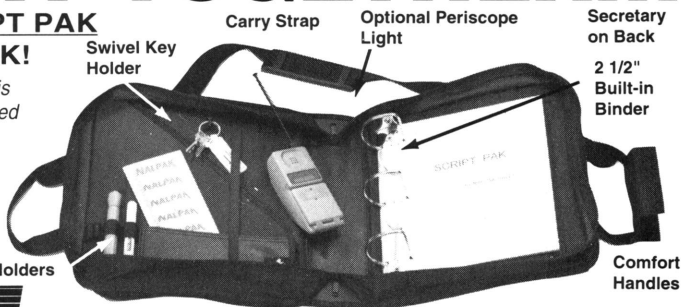
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## 35 MM REFLEX

The Fries model 435 is a new general purpose MOS production 35mm camera. With its optical printer compatible register pins, steadiness and 150 FPS speed. The 435 is ideally suited for special effects, commercials or any photography where a quality steady image is desired.

The 435 is a spinning mirror reflex camera with a 170 degree blanking shutter. The internal 30VDC motor runs the camera from 2 to 150 FPS forward and 2 to 50 FPS reverse, in one frame increments all crystal. The camera is equipped with take-up and supply torque motors.

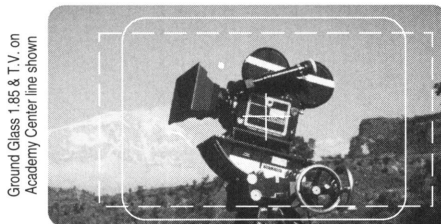
There are both 1000 ft. and 400 ft. displacement type magazines. A new feature is the light valve which allows the operator to direct all the light to the viewing system, or to the video assist, or combo which splits the light between both viewing and video assist.



35 mm, Reflex Camera

## WHY NOT SEE THE WHOLE PICTURE?

The new Fries Director's Viewfinder allows the director to view the full camera aperture .980 x .735, thru the same lenses that will be used on the camera when filming. Why aren't you getting the whole picture?



Ground Glass 1.85 & T.V. on  
Academy Center line shown

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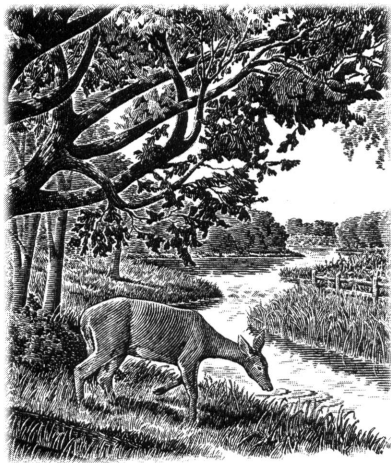
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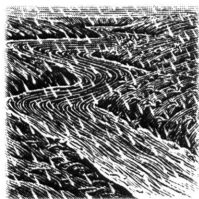
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## Points East

### Character-based Camerawork in *The Spitfire Grill*

by Brooke Comer



Writer/director Lee David Zlotoff's *The Spitfire Grill* is the haunting story of Percy Talbot (Alison Elliot), a young woman recently released from prison, and the suspicion with which she is greeted by the residents of Gilead, Maine, the small New England town where she decides to restart her life. Zlotoff developed the idea for his first feature after learning that Gregory Productions had funds for a film but lacked an appropriate script. Recalls the filmmaker, "They came to me through a series of coincidences, and told me they were looking to make a film with positive human values, without any sex or violence." He offered to write such a script provided that he also be allowed serve as the film's director.

Zlotoff's television background put him in good stead given *Spitfire's* modest budget and short production schedule. He also credits director of photography Rob Draper, ACS whose talent and technical expertise enhanced the film's production value without increasing production dollars. "Rob was referred

by a friend; we'd never worked together before," explains Zlotoff. "Initially, we spent a lot of time talking about the overall look of the film, but we ended up doing much of it on the fly. Our budget didn't permit a lot of rehearsal time."

Even before Zlotoff and Draper's discussions, the director had decided that *Spitfire* was to be based around actors' performances, not fancy camera moves. "I wanted to keep the camerawork as invisible and subtle as it could possibly be. I wanted the audience to be so engrossed in the place itself that they would not even be aware of the camera." Both the director and cinematographer sought to give the film the look and feel of an Andrew Wyeth painting.

Says Zlotoff, "Rob and I both studied Wyeth's work, and I found that there's a sharpness to the detail. At the same time, there's a simplicity to the composition. This isn't a soft, fuzzy film by any means. The details are precise, yet the framing is simple, as are the camera moves. I don't think there's one crane shot in the whole film. There are some dolly shots, but you'd have to look hard to find them."

Draper's desire to shoot with natural light worked with Zlotoff's feeling that the small-town New Englanders lived in a closed society. "Their world is separated, almost shut off from the real world," he explains. The film also moves from dark to light in terms of its storyline; the story's seasons follow suit and change from winter to spring. The blues are cool at the beginning, but Draper then uses coral filters to create more reds and orange until the narrative takes a dramatic turn with the arrival of springtime. Notes the director, "We wanted to let the story progress slowly from a darker, cooler feeling to the bright sun."

Though *Spitfire* is set in Maine, Zlotoff opted to film on location in Vermont. "We had two fairly complex physical challenges during the shooting," he recalls. "One was weather." The director had hoped to catch the tail end of winter, and the beginning of spring, by shooting in April. But, he notes, "April turned out to be a mud month. It rained



a lot. I wouldn't have minded snow, but it rained more than it snowed." The other challenge was a complicated scene in which Talbot is washed over a waterfall during the conclusion of the film. "I knew it would be tough," he says, "and that it would take planning. So I saved it until the end of the movie."

The climactic waterfall scene was achieved with a team of stunt people led by actor/stunt coordinator Danny Aiello III, who worked with ropes, nets and safety lines to navigate the roaring, treacherous falls. "The female stunt double was brave," admits the director. "She took a pummeling." A dummy was used in the shot of Talbot careening over the enormous falls, "but we shot in such a way that we were able to capture the sense of danger and motion." Actors poured hot water down their wetsuits when they emerged from the freezing water, so they wouldn't suffer from exposure. "We'd picked the place where we were going to film the falls," says Zlotoff, "and two days later before we were ready to film there, it was still fine. Then, there was a torrential rainstorm, and on the day we were ready to shoot, it was underwater." Fortunately for Zlotoff, the site he eventually shot from still permitted him to make use of the predetermined angle.

*The Spitfire Grill* was a learning curve for Zlotoff in that it forced him to forego the standards of televisual direction, such as a reliance on close-up shots. The demands of the production also meant that Zlotoff couldn't spend an inordinate amount of time with actors who wanted to hone their scenes. "While I wanted to get their input, often we just didn't have time to experiment, which was troubling for some of the actors. When we were shooting in the grill, we'd set up a shot, and while the crew lit and got ready, we'd go into the other part of the grill and start rehearsing a scene that we'd shoot later. If we had an 8:00 call, I'd get to the set at 4:00 and figure out the blocking. Then I'd tell the actors what I was thinking, and they'd offer their input. I didn't always agree with it, but I welcomed it. The director's role is to set parameters, not specifics," reasons Zlotoff.

"The essence of being a good director is to permit spontaneity that can bring a scene to life. You have to be confident enough to let that happen." ♦

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## Books in Review

by George Turner

### Wilder Times

by Kevin Lally  
Henry Holt, hardcover,  
512 pps., \$30

Billy Wilder is one of the finer gifts Germany sent to Hollywood in the early Thirties. Born in Vienna in 1906, he had already pursued a journalistic career (bolstered by earnings as a dancehall gigolo). By the time he arrived in Hollywood 24 years later he had established himself as a screenwriter in Berlin with 13 feature credits. He was soon employed briefly by Columbia and Pioneer, and two years later began his 18-year association with Paramount. There, he and his future long-time partner, Charles Brackett, were brought together as a writing team by another German emigre, Ernst Lubitsch. In 1942, the duo became an immensely successful writer-producer-director team. The team separated after *Sunset Boulevard* in 1950, whereupon Wilder pursued his career as a triple-hyphenate for more than three decades. Lally gives us the facts behind the bust-up. Wilder sans Brackett made many hits, a few flops and earned accolades galore, including a Presidential citation and six Academy Awards. Brackett's later career was also noteworthy.

Although several books and innumerable articles have been written about Wilder's life and career, Kevin Lally packs a lot more information into *Wilder Times* than has previously been gathered in one place. Intelligently written, filled with anecdotes that are by turns amusing and tragic, it reveals much about Jewish life in Vienna and Berlin before and during the rise of the Nazis, when Wilder and a girlfriend fled Germany. Hollywood during the Depression, World War II and the Cold War years are poignantly described, and the book also offers numerous vignettes involving studio celebrities. No punches are pulled in the delineation of Wilder's combative nature, but his gentler side is also set forth persuasively.

It appears likely that the dark

notes often found in Wilder's comedies (such as *A Foreign Affair* and *Stalag 17*) and the ironic humor that spices the heavier stuff (say, *Double Indemnity*, *The Lost Weekend*, *Sunset Boulevard*) reflect Wilder's tragic personal history, including the deaths of his mother, stepfather and grandmother at Auschwitz.

### The Book of Westerns

Edited by Ian Cameron  
and Douglas Pye  
Continuum, 320 pps.,  
hardcover, \$27.95

In his foreword to this British collection of 29 essays, co-editor Cameron notes, "We have concentrated on the period since 1939 and the definite arrival of the Western in mainstream A-feature production. Within this temporal limit there are strands of Western production that have been excluded: series and serials, singing-cowboy movies, and Westerns that are primarily musicals or comedies. Also excluded are Westerns produced in Europe, whether nourished on spaghetti or paella."

The writers duly limit their attention to the big-time oaters, with nary a mention of, say, Buck Jones, Ken Maynard or Bob Steele. Gene Autry and Roy Rogers get brief side-glances, Big Boy Williams is included because he was Errol Flynn's sidekick in *Dodge City*. Even with this caveat, the essays are considerably more high-toned than most of the pictures they're about. Charles Barr, for example, says of *Dodge City*'s "protracted and exhilarating brawl in the saloon" that "Once again, the core antinomy of the Western couldn't be more knowingly, more diagrammatically constructed than in this famously entertaining setpiece."

Well, a little hifalutin' lingo never hurt anybody, especially when it's applied to a film genre that has suffered from being ignored or mauled by our snooty home-grown critics. The point of the writers here is not to tell about the making of the pictures in historical terms



but to analyze them for content and significance. Most of the writers make sense, although a few continue to toil in the dusty Freudian vineyards, proclaiming one more homosexual motif every time a gun is lifted, pointed or fired.

The many stills are exceptionally well-chosen.

**American Original — A Life of Will Rogers**

by Ray Robinson

Oxford University Press,  
298 pps., hardback, \$30

Ray Robinson, a sportswriter and editor whose previous works include a good biography of Lou Gehrig, calls Will Rogers "a one-man wrecking crew against pretense and pomposity," a description which fits the Irish-Cherokee cowboy star to perfection. Rogers, the son of a well-to-do rancher, was born in 1879 in the Cherokee Nation. He became a working cowboy whose prowess with a lariat brought him early renown. His skill led to a growing fame in Wild West shows, vaudeville, plays, the Ziegfeld Follies, and silent movies. A look at his antics in *A Ropin' Fool*, which he wrote, produced and directed in 1922, would convince anyone that Rogers was the all-time greatest stunt roper. He later gained his greatest fame as Fox Films' number-one star. At the same time, he had a syndicated daily column in 500 newspapers and a network radio program.

Rogers had his own polo field at his home in the hills near Santa Monica (now Will Rogers State Park), and he made polo the favored activity among such macho film men as Spencer Tracy, Johnny Mack Brown, Leslie Howard, Darryl Zanuck and Joel McCrea. He loved flying and took to the air with such famed aerial acrobats as Charles Lindbergh, Capt. Frank Hawks, Amelia Earhart, General Billy Mitchell and Wiley Post. He and Post were killed in the wrecking of Post's new custom-built plane near Point Barrow, Alaska in 1935.

Rogers' favorite targets for humor were political leaders, and he was involved in show business most of his life — traits which give this bio much of its charm. It is a perceptive, contemporary overview of a colorful era in American history. ♦

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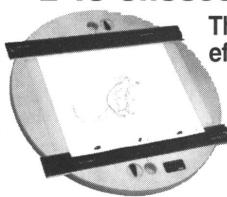
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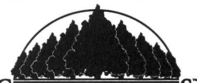
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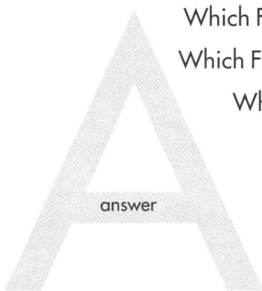
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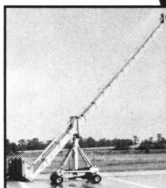
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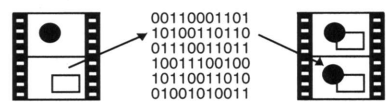
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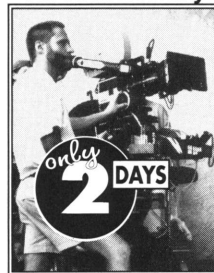
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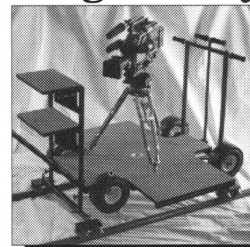
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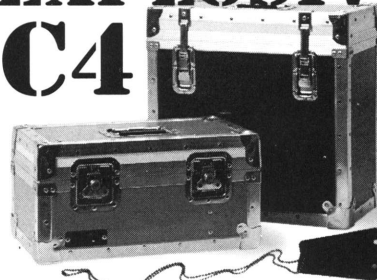
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## Scouting the Past

by John Bailey, ASC

Sometimes, quite unexpectedly, we walk smack into our own past. This happened to me recently while I was scouting locations for an upcoming Jim Brooks film, *Old Friends*.

I was walking with the director, producers, production designer and location manager on 12th Street in the West Village of New York City. We were scouting for the exterior facade and lobby interior of an apartment building that would be home to a character played by Jack Nicholson. Turning around on the sidewalk, I spotted the marquee of the Cinema Village, a venerable art house and one of the few that still shows important older American and foreign films. On this particular day, Monte Hellman's 1971 "cult classic" *Two-Lane Blacktop* was showing in a 25th anniversary presentation.

This picture is a major marker in my film life, as it was the first studio film on which I worked as an assistant cameraman. Shot in the old Techniscope process by Gregory Sandor, and starring James Taylor, Dennis Wilson and Warren Oates, *Blacktop* is an existential, freewheeling on-the-road parable of America at the end of the Sixties, an intellectual's *Easy Rider*. Eagerly anticipated in its day as a story of the contemporary youth culture, it made the cover of *Esquire* magazine, but failed at the box office. This was my first lesson about the vicissitudes of Hollywood.

I had not seen the film since its initial release. On the day following the *Old Friends* location scout, I decided to revisit what had been for me a key formative experience, and dropped in for a matinee screening.

Afterwards, walking out of the cinema, back through the same neighborhood where I will photograph scenes for *Old Friends* this autumn, present and past seemed to merge as I began to think about the special role we cinematographers play in documenting our culture.

This role is made even clearer to us every time we have the opportunity to screen and discuss our own work. And through the prism of our past work, we have a compelling record of our own personal lives.

Like artists in all media, we find and express ourselves through our work. This work, however, also becomes cultural artifact, part of the great cinematic time capsule that not only reveals the ephemeral concerns of the pop culture, but records the deep-seated dreams and obsessions of some of its most gifted writers and directors. We are capturing on acetate the history of ourselves as a people. Within a generation, that history will rank as either pulp nostalgia or significant zeitgeist. And the amazing thing is that when these moments are committed to film, none of us can really predict where on the cultural spectrum any of them will fall. Can anyone know today whether, 25 summers from now, *Independence Day* or *Lone Star* will be the more remembered and honored film? After all, *Citizen Kane*, a film now widely regarded as the apogee of American cinema, nearly went unreleased in 1941. The whole question of cinematic archeology is especially present with us this year, as we celebrate the centennial of cinema, which honors the Lumière Bros.' first public motion picture presentation in a Parisian theater.

As I sat in a nearly empty theater watching *Two-Lane Blacktop*, I was amazed at the precise recall I still had 25 years later. The gas stations, motels, drag strips, "blue highways" and open landscapes that are documented in the film surged forward in my memory as though they were images from yesterday. I vividly recalled individual camera setups, dolly shots, car rigs, and the other mechanical nuts and bolts of a day's work. Eventually, and of most interest to me, was the memory I found in the film of myself as a struggling neophyte.

At the cusp of my career, unbounded possibilities and endless expectations lay before me like the open highway of the film. I was still at the beginning of a life's work, with its direction a tantalizing unknown.

This is a privileged perspective from which to live one's life. A filmmaker's existence is full of anxieties and insecurities, with none of the womb-to-tomb security of a life spent working for a large, stable corporation. But the slow and considered shaping of one's career, that "adventure of self-discovery through work" of which Vittorio Storaro [AIC, ASC] speaks, holds a lucrative promise to many young people and has its myriad compensatory rewards. Unlike the scant financial rewards of artists working in many other media, filmmakers (we cinematographers especially) are often very well paid for our deeply committed work. More and more, we are the respected key collaborators of a creative team, the vital link in assuring that films by new directors and inexperienced producers do come together in a coherent way and radiate visual sense.

There is, however, another perspective from which to observe our work, and that is as a daily journal of our individual selves. Writers, photographers, composers and many other artists speak rather easily about how their work is not only an expression of their abiding aesthetic and dramatic concerns, but an ongoing document of their own lives. Similarly, many "auteur" filmmakers "realize" themselves in the cumulative body of their work. As a director, I recently had such an experience with *Mariette in Ecstasy*, which allowed me to revisit, through the making of a dramatic feature film, the odyssey of my own religious youth, and the path toward a clerical life that I opted not to take.

Cinematographers have an especially magical tool to facilitate this

*Continued on page 120*





## From the Clubhouse



On June 7 the ASC hosted its annual roundtable discussion for the winners of the Student Academy Awards. ASC members Woody Omens, Wayne Kennan, John Bailey, John Toll, Vilmos Zsigmond, Richard Yuricich, Paul Ryan, Jeffrey Kimball and George Koblasi offered their opinions on life in the film business as working cinematographers, along with answers to any queries made by the students. The winners of the 23rd Annual Student Academy Awards were

Patterson (*Independent Little Cuss*), and Stanford University's Ramona S. Diaz (*Spirits Rising*) in the Documentary category; Rhode Island School of Design student Steven Ayromlooi (*Return of the Sun Devil*) and Dartmouth College's Zachary Lehman (*Patronized*) in the Animation category; New York University students Daniel Bova (*Memories of Matthews Place*) and Jason Ruscio (*Eclipse*) in the Alternative category, and National Film School of Denmark student

as follows: Yale University's Jon Andrews (*Short Change*), New York University's Phil Bertelsen (*Around the Time*), and UCLA's Patricia Cardoso (*The Water Carrier*) in the Dramatic category; Harvard University's Amanda Mitchell (*Just for the Ride*), Loyola Marymount University's Jeff

Reza Parsa (*Never*) in the Honorary Foreign Film category.



The ASC recently welcomed Eastman Kodak sales and engineering representative Toni Robertson as an associate member. Robertson has 15 years of sales and marketing experience in the technical field. She received four years of medical training studying X-ray technology at Giesinger Medical Center and nuclear medicine at UCLA. Robertson worked in nuclear medicine until 1978, when she switched careers and began selling medical film for Eastman Kodak. Shortly thereafter, Robertson relocated to Chicago to become the technical sales representative for Kodak's Health Sciences Division, a position she held for seven years. Eager to crack into the film industry, Robertson then worked for Studio Film and Tape. Two years later, she joined up with Agfa as a technical sales representative. When Agfa discontinued its negative production stocks, Robertson then returned to Kodak, where she has been for the past year as a sales and engineering representative. ◆

### Scouting the Past—Continued from page 119

self-expression and discovery. It is light, at once lambent and elusive, and also static and solid. Our work, our experiments in space and time, our aesthetic statements, are encapsulated by it. And, ultimately, it is one key to our unique personal history.

Two years ago at the CamerImage cinematography festival in Torun, Poland, I was able to see nearly a dozen films shot by Vittorio Storaro, who was being honored with a retrospective and a lifetime achievement award. It was because of his work in *The Conformist* that I decided to become a cinematographer. I had seen this film in Westwood during the same year that I served as a camera assistant on *Two-Lane Blacktop*.

The entire history of cinema is readily available to us in a very immediate way. Even when we ignore it, it is

there, a waiting document of where we were, who we were and what we did. I'm not at all certain that this is something a cinematographer thinks much about at the beginning of a career. The demands of finding work, of establishing a toehold to move forward, must be the dominant consideration. But a simple fact abides. You create your own history, your biography, with every image you make.

Credits, of course, are the lifeblood of the industry, and they ensure that your work is not anonymous. On a practical, professional level, people live and die by credits as markers of success. But they are also a record of the *quality* of work attached to a singular person. A credit says, "This is work I did," "This is who I am," or perhaps even, "This is what I believe in." There is no equation here with how a film "performs" — i.e., what its opening weekend grosses are.

That figure is invariably elipsed soon enough by another picture's even bigger grosses. What I am talking about is a more important and lasting indicator. It is, finally, about the contours of your career, about the living of your life in each day's work. I was reminded after that recent screening of *Two-Lane Blacktop* just how connected I still am to work I did as an assistant cameraman.

Sometimes film students will ask me, "How do you approach doing a film?" Perhaps they want to know about the technical and logistical preparation a cinematographer makes. But, ever faithful to the precepts of my Jesuit education, I tend to interpose a more philosophical cast to such a question. "I approach a new film," I tell them, "as though it were my life." Because, in truth, I know more and more with each film that my work *is* my life. ◆



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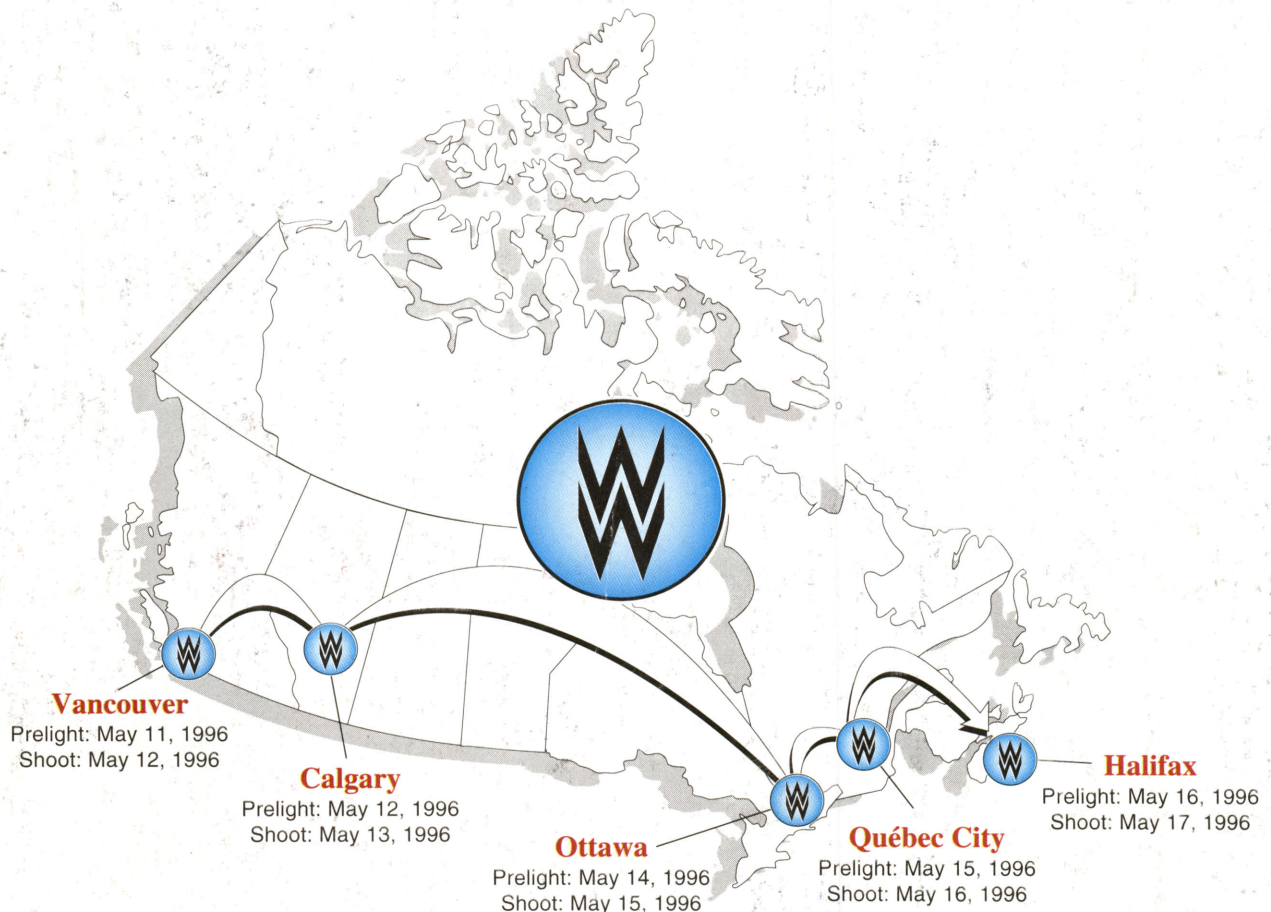




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